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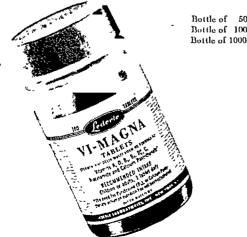
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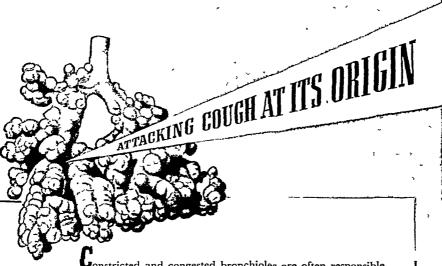
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It is believed that many additional publications will appear during-

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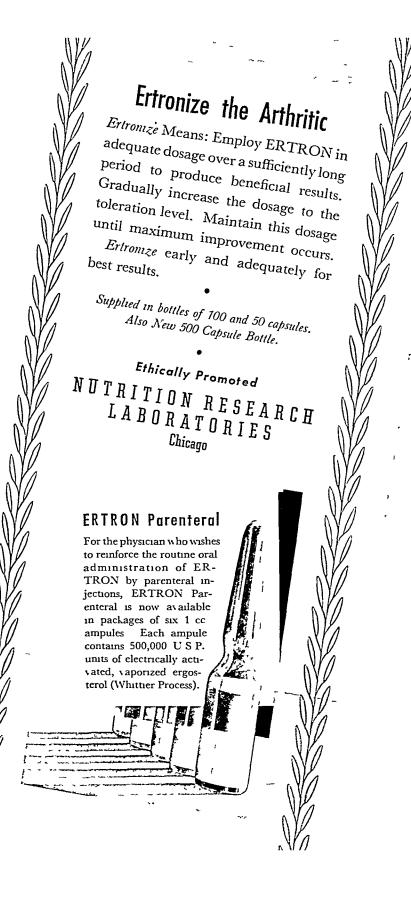
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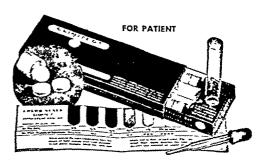
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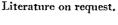
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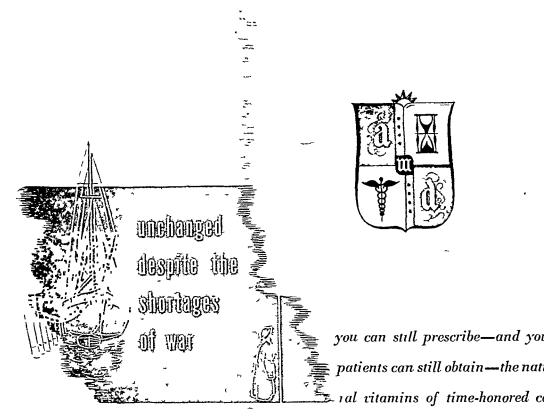


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NUMBER 1

#### Editorial

#### The New Year

The medical profession of the nation starts the new year with many grave problems still but partially solved. It may look back with pride and satisfaction upon the rapidity and thoroughness with which it has supplied the armed forces with competent medical personnel. While this task is not entirely finished, it is well on its way to accomplishment.

A good beginning has been made in the attempt to inform the public concerning the medical and hospital provisions of the proposed Wagner Bill. A great deal remains yet to be done in 1944 with respect to this proposed legislation. One of the contentions of medicine has been that the Surgeon General of the United States Public Health Service would be vested with too much power by the provisions of this Bill. In this connection it might be useful to have the views of the Surgeon General with respect to the Bill. The Journal of the Arkansas Medical Society for September, 1943, page 71, contains a letter dated July 19, 1943, addressed to Dr. R. B. Robbins, of Camden, Arkansas, in which the Surgeon General says as follows:

"I am in receipt of your letter of July 10 requesting my comment on Senate Bill 1161, and asking whether I favor it or not.

"There are a number of considerations which would prevent me from accepting this bill as it stands at present. There is, for example, the question as to whether a compulsory health (or sickness) insurance scheme is the best method for improving the health of the people. I believe other plans should be explored and the advantages and disadvantages of the several methods freely discussed.

"I feel also that everything possible should be

done to elicit constructive suggestions from outstanding leaders in the medical profession, and that the physicians now serving in the armed forces should have an opportunity to express themselves regarding plans which would greatly affect their professional careers...."

It might be well if this considered opinion of the man who would be the Czar of American Medicine if this bill were passed should be more widely publicized.

Many knotty questions related to the administration and acceptance of EMIC remain to be solved. In this state notable cooperation of the State Department of Health with the Medical Society of the State of New York has made possible a wide application of, if not complete agreement with, the plan of the Children's Bureau. It is to be hoped that the continuing efforts of the Department of Health and the State Medical Society may, in the coming year, resolve many of the remaining difficulties.

The continued progress of the armed forces is encouraging. Success, however, from a military point of view, carries with it an expectation of great casualty lists and therefore more numerous problems to be solved by the medical profession. The success in saving of life by means of improved medical care carries with it the probability of the survival of a greater number of those who will need continuing medical and other assistance as they return to civilian life. The national, state, and county societies are already giving this matter consideration, especially with respect to the problem of the placement and reinstatement of members of



### In Nutritional Deficiencies



The rationing of important iron-giving foods deserve serious consideration as a possible cause for existing and potential iron deficiencies for many.

The authorities manifest growing concern over the ever increasing cases of anemias. Such conditions indicate that never before has it been so important to look at the blood! Anemias of nutritional origin are effectively and economically corrected by the administration of specially prepared iron (easily assimilated ferrous sulphate—plain or with liver concentrate) incorporated in ...

### Hematinic Plastules\*

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DIVISION WYETH INCORPORATED
\*Reg U S Pai Of Copyright 1943 The Bovinine Co

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center largely about domestic issues, medicine is certain to be involved, for its services touch in one way or another nearly every aspect of human life and activity. It would be well to consider that the year 1944 will be merely one in a long succession of years gone by and to come. It will pass as others have done before, adding its quota to human misery, and contributing its sand grain to the pitifully small pile representing human gains.

To all our members, and particularly those in the armed forces. Happy New Year and speedy victory.

#### The Annual Meeting

This year the Annual Meeting of the Medical Society of the State of New York will be held May 8-11 at the Hotel Pennsylvania, New York City. To many of our members it will very possibly seem strange that we meet this year in a different portion of the city than heretofore, for this will be the first time that the annual meeting will have been held at the Hotel Pennsylvania. This is merely one of the numerous changes necessitated by the war, but we hope that the many advances in the art and science of medicine, hastened in great measure by that same war, may prove a lodestone which will attract our membership to the fullest ex-

The scientific and other exhibits are pouring m, and in this connection it may be well to emphasize that January 20, 1944, will be the last day for listing the scientific exhibiters, according to the announcement of the chairman of the committee on the scientific exhibits of the convention committee. It will be of great assistance to the committee if prospective exhibitors will file their applications well in advance of the closing

It will be well for all our members now to mark off on their calendars the dates May

Many aspects of medical practice and of the relationship of the profession to allied professions, hospitals, agencies of government, are changing so rapidly that it is becoming more and more imperative for all those who can to attend the Annual Meeting. Everyone owes it to his community to keep abreast of these changes. More and more the public wants to know what is happening in medicine. It is only right that it should be able to obtain accurate and upto-date information concerning these changes from the physicians in each locality. This imposes an additional obligation on every physician to keep himself informed of present and prospective plans. Many physicians are members of their local service clubs, their church organizations, and of many civic bodies. There is thus afforded an enormous opportunity for the doctors of the country and of New York State in particular to discuss these matters with lay people and to inform the public of the attitude of physicians with respect to proposals for change in the practice of medicine. It is the will of the people which prevails through their representatives in the various state legislatures and in the Congress of the United It is important for physicians to bear this in mind, and to be able to act in an advisory capacity in their several localities to all those who may wish advice and information concerning proposed changes.

While the Medical Society of the State of New York, through its various publications and other channels, endeavors to keep its membership as fully informed as possible, the mechanism by which information is channeled from the Council of the Society through the columns of the Journal and the publications of the Bureau of Public Relations necessarily slows down somewhat the speed with which it can be brought before the membership of the Society. Added to this is the delay arising from the pressure of practice and other affairs which still further delay the doctor in his acquisition of this published information. He simply does not have the time to read it.

But at the Annual Meeting he is presented with the opportunity of catching up with the latest information on all these topics, to fill in the gaps which may have occurred since the previous Annual Meeting. This year, probably more than any previous year, it will be necessary for all physicians to be fully the medical profession. This year, however, will bring home the shortage of physicians and nurses available for civilian medical service. Mild epidemics are already beginning to appear as fatigue and strain take their toll of human reserves of physical and nervous energy.

Advances in chemotherapy have shortened the period of treatment and consequently the cost of many illnesses—pneumonia and meningitis, for example. Surely this will be reflected in less time lost from work, and a reduction in the over-all cost of medical care, including hospitalization and necessary nursing service.

Tuberculosis has not as yet shown the expected increase usual in wartime-for what reasons seems not yet to be clear, but the fact appears to be incontrovertible. is possible that the long education of the public through the efforts of the medical profession, the health departments, and the voluntary agencies is beginning to bear In this connection, the better understanding of the principles and practice of nutrition should not be overlooked. Knowledge of the vitamins, recently acquired and accepted by the public, better preservation and conservation of foods, and betterbalanced diets are undoubtedly playing a major role in the betterment of the public health.

Medicine must serve the needs of the nation perhaps more quickly and intimately than any other profession. It is therefore highly necessary that it remain, as heretofore, extremely fluid in its structure and function. It must be able to some extent to forecast the public need and to concentrate its now considerably diminished forces to meet actual and pressing emergencies. It would appear to be an inopportune time to introduce the inevitable rigidity of government control, but, on the other hand, a most opportune time to expand the mechanisms of the organized profession for keeping in touch with the trend of public thinking. Medical education is largely out of the sphere of control of the profession, owing to circumstances of the war. An increasing number of medical graduates will have had very little contact with or appreciation of public opinion or the problems of domestic medicine. This fact, though not of immediate importance, is bound in the end to have a considerable influence, commencing probably in this year 1944, when increasing numbers of them will return to their communities.

The question of prepaid medical and hospital insurance remains to a great extent unsolved. It cannot wait forever. Many states of the Union have no prepayment plan at all. The number of these is twentysix; and the District of Columbia is also in this group.

The rest of the states either have plans in full operation or regional plans in operation on an experimental basis.

This record is not good enough. Some experience with the mechanism of prepaid insurance is now available and it can no longer be said that the actual experience is entirely lacking. Granted that this experience is not complete, there is nevertheless available sufficient to warrant a more general experimentation with this type of coverage. We hope that the year 1944 will see a more or less unified plan in general operation throughout New York State. We have held out prepaid insurance plans as the antidote for the poison of socialized medicine. If that is so, that antidote must be available everywhere and to anyone who needs it. Organized medicine will have to recognize the fact that this type of insurance must be It must be sold to the public, and it is our belief that it must be sold to the public by those who know how to do it. If the doctors can do it, well and good; but of this we have doubts. If it is proper for the shoemaker to stick to his last it is equally proper for physicians to stick to their doc-They are not trained as salesmen of insurance. If organized medicine will recognize this fact and adjust its thinking to the utilization of some sales agency for this type of insurance which knows how to sell it. things will move faster. We believe that this is the time, if ever, to do some straight thinking on this subject. If we are to oppose effectively a national plan for socialized medicine, we must oppose it with an alternative plan on an operating basis, sufficiently widespread to support our contention.

An election year in the course of a war must necessarily add stresses not usually encountered. Since these stresses must

#### TREATMENT OF ARTERIAL EMBOLISM OF THE EXTREMITIES— A THREE-PHASE DIVISION

FREDERICK S. WETHERELL, M.D., Syracuse

A RTERIAL embolism of the extremities is a A catastrophe which, almost without exception, is first seen by the family physician. Quick recognition and rapid institution of therapy are, therefore, practically always so-called medical problems: the practitioner becomes the first hope of salvation for the threatened limb. If it were impossible to save the part, a physician would be justified in carrying out the old line of treatment: opiates, heat to the extremity, and watchful waiting. With increasing success in the treatment of arterial embolism. however. this hopeless attitude must be revised.

Sudden pain in the foot or leg, or in the hand or arm, accompanied by pallor and paralysis, the "three P's," plus a pulse deficit and other signs of auricular fibrillation, clinch the diagnosis. bolism is simulated by the final, complete closure of sclerotic vessels, but the story is different. In the latter there have likely been several previous indications of impaired circulation-e.g., attacks of intermittent claudication. Embolic block is sudden, out of a clear sky, and dramatic. We see an unforgettable picture: marble-like whiteness, light purplish-blue mottling, and coldness of the skin: inability to move the foot or toes, or in case of the upper extremity, the fingers or hand; absence of pulsation of the artery supplying the part, loss of the sense of touch, and excruciating pain, barely controlled by morphine.

Inasmuch as this is a discussion of treatment, further remarks on diagnosis, history of the disease, and historical aspects will not be covered. The latter are fully discussed by Pratt in a recent article.1

It is only within the past decade that reports of successful embolectomies have appeared in increasing number in the American literature use of anticoagulants, notably heparin, is without question the reason for the more frequent successes. The danger of postoperative clotting, at the site of the arterial incision and suture, has been greatly diminished by the use of this drug.

It is now generally recognized that the arteriolar spasm of the collateral vessels, which accompanies the lodgment of an embolus, diminishes or even completely blocks the collateral circulation which, if unaffected, would in many instances furnish temporary nourishment, later increasing

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943. From the Department of Surgery, Syracuse University

College of Medicine.

to replace the supply formerly furnished by the closed main vessel.

Personal experience and observation suggest that treatment may be divided into three phases.

#### Treatment

First Phase.—Papaverine, a vasodilator drug, will in some instances be sufficient in itself to establish collateral circulation. Once the diagnosis is established, the patient should immediately be given a dose of 1/2 to 2 grains (0.30 to 0.120) Gm.) if given intramuscularly, to be repeated in two or three hours: one-half this dose if given intravenously. The surgeon who has been called will be confronted with the necessity of locating the exact site of the embolus. Lack of arterial pulsation distal to the embolus and oscillometric readings aid in this determination. If an oscillometer is not available, a sphygmomanometer may be used. The diagnosis is not always simple. Lack of acumen led me on one occasion to lay hare the brachial artery above the elbow: the popliteal instead of the femoral artery, in another case. In each instance, however, it was thought by several observers that pulsation could be felt above the site of incision shortly before operation was begun. The adage that "It is probably higher than you think" held true in both instances. A knowledge of the incidence of site of embolic block is valuable. It is approximately as follows:

	Percentage
Bifurcation of aorta	4.5
Iliac	17.0
Femoral	55.0
Popliteal	11.0
Brachial	12.0

If an improvement in circulation is noted following the administration of papaverine, as evidenced by increasing warmth of the affected part and return of the sense of touch and motion, even to a small degree, an attitude of watchful waiting may be justified. It is essential that the patient be in a hospital during this period of observation and that the improvement be progressive. At this point the thermocouple becomes an aid in estimating increasing local temperature; its value is, however, distinctly secondary to that of the oscillometer.

Second Phase: Sympathetic Nerve Block .-The possibility that a good result will ensue from this time on is usually so doubtful that a proinformed on the advances being made in practical plans for prepayment insurance, in plans for furthering group medicine, and further steps being taken to check the type

of legislation contained in the medical and hospital provisions of the Wagner Bill

So mark your calendars for May 8-11, 1944, Hotel Pennsylvania, New York City.

# Mortality in Children with Rheumatic Fever

"Children with theumatic fever," says the Statistical Bulletin of the Metropolitan Life Insurance Company, "are subject to a very high mortality during the acute phase of the disease, but once this stage is passed the death tate falls sharply."

In view of the current interest in the treatment of rheumatic fever, these statistical observations should be of interest. The study which brought out these facts was done on 2,817 policyholders of the Company under the age of 20, who received nursing care between the years 1936 and 1938 by the Company's visiting nuise service during an acute attack of the disease, and have been followed up each year since then.

Says the Bulletin:

"In this period, with an average duration of observation of nearly five years for the group as a whole, 257, or one out of every 11, have died. This mortality is about fifteen times as high as would be expected in a group of young people of like sex and age distribution. The death rate among the boys has been about one-fifth greater than among the girls.

"The individual histories available for this study generally did not indicate whether the child suffered a first or a recurrent attack—an important factor in the prognosis. That the cases studied were of more than average severity may be inferred from their age distributions as well as from the fact they were ill enough to require nursing care. "Children who were definitely reported to have

"Children who were definitely reported to have heart involvement during the attack for which they were nursed have had a much higher mortality than the other cases. In this group, containing less than one-fourth of the cases in the study, there occurred 152, or nearly 60 per cent, of all the deaths. Since there is some degree of heart involvement in practically every attack of rheumatic fever, whether or not reported, it may be concluded that the cases in which a heart condition was actually reported represent the most severe in the study.

"Mortality was especially high in the first year following the acute attack for which the children were nursed. Among those with reported heart involvement during the attack, nearly one-fifth died in the first year. The actual death rate was 184 per 1,000 per annum, as compared with 23 per 1,000 in the second year, and an average of 16 in the subsequent period of observation. In contrast, a death rate of little more than one per 1,000 has prevailed among children of these ages in the general experience of the Company. Among the other cases nursed (those without reported heart involvement), the first-year death rate was 18 per 1,000, or only one-tenth that of the group with cardiac involvement. In the second year of observation, the death rate in these other cases was 11 per 1,000, and in the remaining period it averaged 7 per 1,000. Even this rate is about five times the usual mortality.

"Heart disease was reported as the cause of 80 per cent of the deaths among the children in the study."

## Correspondence

12 East 87th Street New York December 14, 1943

Editor, New York Stafe Journal of Medicine Dear Doctor

Doctor Lowsley's paper in the current [December 1, 1943] issue of the State Journal on plastic induration of the penis is most interesting. However, he does not describe the further potential changes which may take place in these areas of induration. Not uncommonly, calcification of these areas follows, so that a veritable "bone" is formed in the septum, usually on its dorsal aspect. These calcified areas do not contain true bone structure (Haversian systems). A true os penis is,

however, regularly found in some of the lower mammals. Very rarely in the human subject, this bone is fractured during cortus, as I reported in 1914 in the Annals of Surgery. There is no record of such an occurrence in the lower animals.

This form of pathology is very commonly a late manifestation of syphilis in combination frequently with a local chronic form of irritative trauma, as from the wearing of a corset. In the more flaced noncalcified form of induration, there is a frequent instory of a preceding gonorrhea in which the inflammatory process spreads outside of the urethra into the penile septa

Very truly yours, A. O. Wilensky, M.D.

<sup>1</sup> Vol 24, No 11, November, 1943.

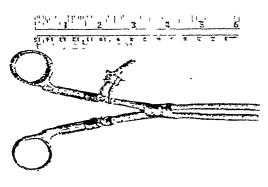


Fig. 2

through the suture line if a tendency to clotting is noted. If heparin is not administered preoperatively, the surgeon may find that a supposedly dry wound becomes a well of tiny arterial "oozers," when the heparin becomes fully effective postoperatively: a troublesome hematoma forms. This occurred in two cases: one in the arm, in which heparin was not given until the operation was completed; and another in which the popliteal space was opened in error and then closed before the femoral embolectomy was done. Here it would have been better to have left the first wound open until circulation had been re-established, thus making it possible to attain meticulous hemostasis, each tiniest bleeder being clamped and tied. Wound healing was perfect in the cases in which heparinization was instituted before the embolectomy was done, and the wound then made surgically dry before closure.

Although it is to be presumed that the preoperative sympathetic nerve block has ablated all vasoconstrictor impulses, and that the effect will be lasting if alcohol has been used in addition to procaine, it is still possible that the artery may constrict following the operative manipulations of incision and repair. This occurred in the case of a femoral embolism. the completion of the arterial suture, pulsation was forceful down to the incision but the artery below the suture line was quiet. A few drops of I per cent procaine were injected into the wall of the artery proximal to the repair, just under the external coat, using a small hypodermic needle. The circulation was immediately reestablished. To assure paralysis of the vasoconstrictor impulse for a short time postoperatively it may be well to thus inject a small quantity of procaine routinely.

5 The use of dicoumarin, \* replacing the hepa-

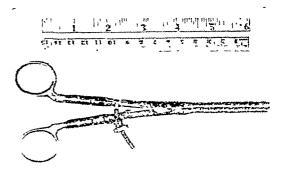


Fig. 3

rin effect after the first twenty-four to forty-eight hours, will considerably lower the cost of treatment. It has been completely effective in maintaining a low prothrombin percentage. In one instance (Case 4) there was vaginal bleeding which required blood and plasma transfusions before it was controlled. The drug is given orally; administration is begun coincidentally with the heparin infusion.

#### Case Histories

The following case histories will be epitomized to the extent of reporting mainly the treatment, with such collateral observations as seem important.

#### Embolectomy

Case 1.—L. C., a man aged 63, a truck driver, was admitted to St. Joseph Hospital, November 20, 1941, five hours after the onset of embolism of the second part of the right axillary artery, a rare site. The right hand was painful, pale, and paralyzed. Auricular fibrillation was present. Against his doctor's orders, he had taken no digitalis during the previous six weeks. Dr. A. D. Ryan, of Sodus, New York, had made the diagnosis of embolism and had administered I grain (0.060 Gm.) of papaverine intramuscularly.

Operation: Under local anesthesia an incision was made in the lower third of the arm. Radial pulse was absent, but a pulsation had been felt in the middle of the arm shortly before operation. Exposure revealed the brachial artery pulseless and collapsed. Anesthesia was extended upward into the axilla. The embolus was located at the level of the anterior circumflex humeral artery. Forceful pulsation was felt just above the level of the subscapular artery. This artery was thrombosed at its origin. The long thoracic artery, 1/2 inch above, was pulsating. The anterior circumflex humeral artery was apparently blocked by a bud of the main thrombus, as evidenced by the blue discoloration similar to that in the main artery. This bud was recognized on the thrombus after its removal from the axillary artery. An incision about 2 cm. in length was made over the thrombus. The throm-

Pulvules 3,3'-methylenebis(4-h) droxycoumarin), 50 mg. Furnished by Eli Lilly and Co. for investigational purposes.

caine block of either the stellate ganglion or the lumbar paravertebral sympathetic ganglia may well be done at once. Heparin and dicoumarin should be started as soon as practicable. Alcohol, in 5 cc. amounts for each lumbar ganglion injected, is advisable. It will eliminate the necessity of repeating a maneuver which puts a strain on a seriously ill patient. Evidence of proper placement of the injection is essential before the use of alcohol. The permanence of Horner's syndrome produced when alcohol is used in the neck and the ease of repeated block by the anterior route suggest the use of procaine alone in this region. As will be shown later. sympathetic nerve block may effect a complete re-establishment of the circulation. It will be shown, too, that definite dangers are involved from the standpoint of incorrect interpretation of return of circulation, the error resulting in the loss of the affected part (Case 6). It is to be presumed that the sequence of treatment so far, from the time when the patient was first seen, has not consumed more than two or three hours. We can truly say that time is of the essence in these cases.

General experience indicates that the best results are obtained when embolectomy is performed within eight hours (better less) from the onset of embolism. F. W. Bancroft, however, reports a case in which a successful embolectomy was done forty-eight hours after the first symptoms appeared. This unusual occurrence seems to warrant a revision of our indications for operation so far as the time element is concerned. The condition of the extremity would nevertheless still be the criterion. Damage of the intima is in direct proportion to the length of time an embolus remains attached; coincidentally, the danger of postoperative thrombus formation is in-Heparinization and the use of dicreased. coumarin may minimize this complication.

If the patient cannot move the part, still has pain, and the pallor and blotching have not entirely disappeared within a half-hour following sympathetic block, the final step should be undertaken without delay. By this time the location of the embolus should have been established.

Third Phase: Embolectomy.—Local anesthesia is to be employed; the use of epinephrine in the solution, still recommended by some authors, is distinctly contraindicated. Other anesthetics would endanger an already impaired cardiac function. Most of these patients are in a dangerous condition. A few variants of embolectomy technic, as usually described in the literature, were applied in the cases to be discussed. They are as follows:

1. The use of interrupted sutures rather than a running type of stitch. Clamps (later de-

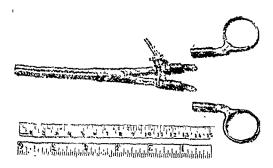


Fig. 1

scribed) are placed above and below the embolus. The artery is incised and the thrombus removed. Sutures of specially prepared arterial silk are now placed about two millimeters apart. Then the clamp, which has been placed on the vessel proximal to the arterial incision is loosened. The distal clamp still being in place, full force of pulsations will be applied to the repaired wall. One or more fine spurts of blood might be seen at this time, issuing between the sutures. These bleeding points are noted and the lower clamp removed. The drop in pressure on the wall of the vessel is now marked by a cessation of active spurting, although there may be active oozing. Both clamps having been reapplied, supplementary sutures, fairly superficial, are placed at the points of spurting previously The importance of avoiding the intima noted is too well known to require comment. method of interrupted suturing has proved completely satisfactory. The side-pressure on the suture line is so markedly lowered, once the distal clamp is removed, that one can feel certain that bleeding is controlled if full pulsation against the previously clamped artery has caused no fine spurts of blood.

2. The use of a soft-bladed, rubber-covered clamp, rather than a spring clip or ligatures, gives better control of the amount of pressure applied to the arterial wall. Figs. 1, 2, and 3, show a clamp which is being developed at this time. With it, graded pressure may be made; removable handles leave the operative field free. The lightest pressure commensurate with adequate hemostasis may be applied with this instrument, serious damage to the intima being thus avoided.

3. Heparinization, begun before operation, seems to have advantages which outweigh the disadvantages of an oozing wound incident to its use. A continuous intravenous drip, started while the patient is being prepared, will aid in the prevention of thrombus formation during the suturing of the artery. Furthermore, some of the solution, being handy, may be injected

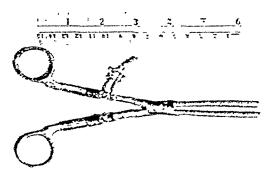


Fig. 2

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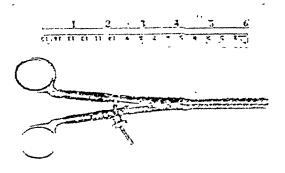


Fig. 3

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If the patient cannot move the part, still has pain, and the pallor and blotching have not entirely disappeared within a half-hour following sympathetic block, the final step should be undertaken without delay. By this time the location of the embolus should have been established.

Third Phase: Embolectomy.—Local anesthesia is to be employed; the use of epinephrine in the solution, still recommended by some authors, is distinctly contraindicated. Other anesthetics would endanger an already impaired cardiac function. Most of these patients are in a dangerous condition. A few variants of embolectomy technic, as usually described in the literature, were applied in the cases to be discussed. They are as follows:

1. The use of interrupted sutures rather than a running type of stitch. Clamps (later de-

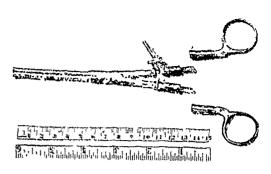


Fig. 1

scribed) are placed above and below the embolus. The artery is incised and the thrombus removed. Sutures of specially prepared arterial silk are now placed about two millimeters apart. Then the clamp, which has been placed on the vessel proximal to the arterial incision is loosened. The distal clamp still being in place, full force of pulsations will be applied to the repaired wall. One or more fine spurts of blood might be seen at this time, issuing between the sutures. These bleeding points are noted and the lower clamp removed. The drop in pressure on the wall of the vessel is now marked by a cessation of active spurting, although there may be active oozing. Both clamps having been reapplied, supplementary sutures, fairly superficial, are placed at the points of spurting previously The importance of avoiding the intima is too well known to require comment. method of interrupted suturing has proved completely satisfactory. The side-pressure on the suture line is so markedly lowered, once the distal clamp is removed, that one can feel certain that bleeding is controlled if full pulsation against the previously clamped artery has caused no fine spurts of blood.

2. The use of a soft-bladed, rubber-covered clamp, rather than a spring clip or ligatures, gives better control of the amount of pressure applied to the arterial wall. Figs. 1, 2, and 3, show a clamp which is being developed at this time. With it, graded pressure may be made; removable handles leave the operative field free The lightest pressure commensurate with adequate hemostasis may be applied with this instrument, serious damage to the intima being thus avoided.

3. Heparinization, begun before operation, seems to have advantages which outweigh the disadvantages of an oozing wound incident to its use. A continuous intravenous drip, started while the patient is being prepared, will aid in the prevention of thrombus formation during the suturing of the artery. Furthermore, some of the solution, being handy, may be injected

ompletely. Two grains (0.120 Gm.) of papaverine and been given intramuscularly and heparin beoun at the time of operation. Dicoumarin adninistration was started after ten days of hepariniration. Inexperience can be blamed for this delay. The prothrombin level dropped to 6 per cent of normal and the menstrual flow, which had started after the embolectomy, became hemorrhagic. Drs. F. R. Parker and W. W. Street, in charge during my absence, discontinued dicoumarin and gave 200 cc. of plasma and 1,000 cc. of whole blood to replenish the prothrombin. Bleeding was controlled. The patient had been out of bed and had walked on three successive days when a sudden abdominal pain and diarrhea developed. A tentative diagnosis of mesenteric embolism was made. She died on the following day. Autopsy proved the diagnosis; infarctions were present in the small intestine and kidneys.

## Papaverine Alone

Case 5.—This case, a second admission, is the one instance in which only papaverine was used. It was continued over a period of nine days, 1/z-grain (0.030 Gm.) doses hypodermatically, at first every two hours for four doses, then every four hours for two doses, and then every eight hours for three days. Discontinued for two days, it was again given in the same dosage every two or three hours if the patient was awake. At the end of twenty-four hours, the dose interval was changed to every six hours and thus continued for one day. As before stated, this patient was not seen by me personally but there is no question about the competency of the observations made. There was a steady improvement after the first dose.

# Papaverine-Heparin-Dicoumarin

Case 6 .- M. W., 46-year-old white woman, was admitted to St. Joseph Hospital, March 12, 1942, at 10 A.M. Diagnosis, left popliteal embolism. Her condition was critical. She showed auricular fibrillation, paralysis of foot, loss of sense of touch, both superficial and deep, white skin with purplish mottling, and excruciating pain extending from thigh to toes. No time had been wasted in this case. Her family physician, Dr. J. V. Sheedy, saw her at 9.00 a.m. At 10:00 a.m., 1 grain (0.060 Gm.) of papaverine was injected intramuscularly, and continued subcutaneously in the same dosage at four-hour intervals for four doses, then 1/2 grain (0.030 Gm.) every two hours for eight doses. The administration was thus spread out in the hope that a more sustained vasodilator effect might be attained. As improvement was noted, the doses were spread to four-hour intervals for two days, then every six hours for two days, and then discon-

Continuous venous heparin infusion was not begun until two and a half hours after admission, due to an unavoidable delay. The foot and leg by this time had improved in appearance and temperature, and the patient was able to wiggle the toes slightly. The improvement continued.

This is the first case in which dicoumarin was

given. It was not started until the beginning of the third day, at which time assurance of the safety of administering heparin and dicoumarin synchronously had been given over the telephone by Dr. Ovid O. Meyer, of the University of Wisconsin Medical School.

The initial dose was 350 mg. Then, beginning the next day and continuing for seven days, 100 mg. were given in the morning and 50 mg. at night. The prothrombin percentage averaged 62 per cent, the lowest reading being 25 per cent on the fifth day. It rose to 73 per cent on the sixth day and 88 per cent on the seventh day; the dosage had not been changed. The day following discontinuance it was 71.4 per cent of normal (Smith bedside estimations).

The patient was out of bed on the thirteenth day after admission and went home three days later.

Two months and four days later, she was again admitted. She had been working as a bookkeeper for several weeks. While at work, she was seized with an excruciating pain in both legs and thighs and had severe dyspnea. She was extremely ill. She begged that nothing be done for her except for relief of pain. Diagnosis: Aortic saddle-embolus. She was given papaverine and morphine. Her temperature rose rapidly from 99.4 F. to 105 F. in ten hours, at which time she died.

Case 7.-A. A., a 70-year-old white woman, was admitted to University Hospital at 1:15 P.M. on March 19, 1942. She had been seen by Dr. A. N. Curties in her home twenty-six hours previously. He noted that the left leg was cool, pale, and felt numb to a level 4 inches (10 cm.) above the patella, with red mottling of the skin. Motion of toes and sensation were still present. Bilateral femoral pulsation was present. Left popliteal pulse was absent. His diagnosis at that time was acute occlusion between the bifurcation of the left common iliac artery and the profunda femoris. Examination in the hospital showed a much fainter pulsation of the femoral artery; warmth, however, now extended down to the midcalf. There was a blunted touch sensation and occasional ability to move the foot, less so the toes. The skin of the foot was a bluish white.

Two grains of papaverine (0.120 Gm.) were administered intramuscularly forty-five minutes after admission. This dose was repeated four hours later and then diminished to 1 grain (0.060 Gm.) every four hours and continued for seven doses.

Heparin and dicoumarin were started simultaneously at 2:15 P.M. The heparin was regulated to attain a clotting time of fifteen to twenty minutes. Lee-White clotting time was thirty-five minutes at the end of the first hour. The drop was regulated but the clotting time remained between thirty-five and twenty-four minutes for twenty-four hours, finally holding at an average of about fifteen minutes. Heparin was discontinued at the end of fifty-three hours. The dicoumarin was given in amounts intended to keep the prothrombin at approximately 25 to 50 per cent of normal. The first dose was 0.350 Gm. (seven 50-mg. pulvules), then the following doses at twenty-four-hour inter-

bus arched out of the wound at completion of the incision and free bleeding ensued despite the fact that rubber-covered clamps had been applied above and below the embolic site. This bleeding came from the freed opening of the posterior circumflex humeral artery. The lower end of the thrombus was milked out easily, and was followed by the rest of the clot when the proximal clamp was opened. Loosening the proximal clamp and allowing the forceful ejection of blood to continue for three or four heartbeats gives some assurance that the artery above is cleared of thrombus. This was done in each of the cases here recorded and will not be further mentioned in the case histories. A fine silk atraumatic suture, used in eye operations, was applied in the manner described previously, no special arterial suture being available at the time. It sufficed.

There was still no radial pulse. Inspection of the radial artery at its source showed a blue discoloration indicating the presence of a thrombus. Some color having returned to the hand, along with warmth and motion, it was felt that adequate collateral circulation would occur through the ulnar artery. The radial artery was therefore not opened.

Heparin was started about two and one-half hours after the beginning of the operation. One hour later a radial pulse was noted, bounding in character. Whether heparin was responsible for loosening of the radial thrombus, or solution of it, is conjectural. It has been thought that no such effect was possible. It is here recorded to show that something of the sort must have happened.

Postoperative Course: Three things are to be noted. The first is the formation of an extensive hematoma, requiring drainage by spreading the incision; the second is a severe reaction following blood transfusion on the fourth day. The patient "went wild," required shackling, and was completely irrational. Third, on the tenth day, a phlebitis of the superficial veins of the foot occurred around the area of heparin injection. Heparin was discontinued at this time. The use of dicoumarin will eliminate this complication; it was not infrequent with long-continued use of heparin. The patient was discharged at the end of a month. The heart rate was regular; digitalis had been given since the day following operation. On March 31, 1943, there was perfect function of the right arm and hand. The patient is trying to get a job in the trucking business.

Case 2.—A. H., a 71-year-old white woman, was admitted to St. Joseph Hospital with a diagnosis of perforated peptic ulcer on November 22, 1941. The perforation apparently sealed and the patient's condition improved. Auricular fibrillation had been present for several years. On the fourth day after admission, at 6 a.m., she complained of a sudden sharp pain in the right thigh and leg. The nurse made note of a warm leg, but at 6:45 a.m. she noted "coldness of leg and foot with cyanosis." She was seen at 8:45 a.m. and a diagnosis of popliteal embolism was made. One grain (0.060 Gm.) of papaverine was given intra-

venously. Administration of heparin was started at 10:30 A.M. and the operation was begun at 11:00. Immediately after the arterial repair and removal of the clamps, the patient joyfully reported cessation of the excruciating pain and spoke of the warmth of the foot and her ability to move her toes.

From the viewpoint of re-establishing the circulation and saving the leg, the embolectomy was successful. The patient's general condition, however, gradually deteriorated until her death on the eighth day after operation. There were manifestations of cerebral involvement, probably on an embolic basis.

Case 3.—C. P., a 55-year-old white woman, was admitted to St. Joseph Hospital on February 5, 1942, at 2:00 P.M. At noon she had a severe pain around the left knee joint and numbness of her foot. She continued to work in the kitchen for fifteen minutes but the pain became so severe that her physician (L. W. Ehegartner) was called. Her husband noticed that the foot and leg were cold and white.

One grain (0.060 Gm.) of papaverine was given intramuscularly upon admission to the hospital. Her heart was fibrillating (she had been taking digitalis regularly for three years). Much difficulty was experienced in determining the location of the embolus. At times it was thought that there was pulsation at the proximal end of the popliteal artery. The femoral artery was pulsating forcibly just inferior to the inguinal ligament. It is to be recalled that there is often a strong pulsation just above an embolus, and that this pulsation may be transmitted distally through it. This is the case which has been referred to in preceding comments regarding error in site of incision.

The patient left the hospital on the fifty-third day after admission, the long convalescence being occasioned by the formation of a hematoma which became infected.

She was readmitted nine months later, January 14, 1943, with another embolus, diagnosed as left external iliac. She was given ½ grain (0.030 Gm.) of papaverine every two hours for four doses. The leg was wrapped in cotton-batting dressing, a cradle placed over it, and heat applied. I did not see her during this admission. This report is made through the courtesy of her physician, Dr. J. G. Fred Hiss. Papaverine was continued in ½-grain (0.030 Gm.) doses at varying intervals. There was improvement in the circulation within a short time and she remained well until her discharge fifteen days after admission.

On February 28, 1943, she developed a mesenteric embolism and died two days later.

Case 4.—M. W., a 49-year-old white woman, was admitted to the Syracuse Memorial Hospital on March 27, 1942, at 2:00 p.m. Twelve hours previously she had had pain and loss of function of her right leg. She was mentally confused and somewhat unmanageable, a condition which had been present to some degree following a cerebral embolism six months previously. Two hours after admission, an embolectomy of the right femoral artery was successfully done, the leg regaining its circulation

left undisturbed. The stump healed per primam and the patient left the hospital two weeks thereafter. Her total hospital stay was three and a half months. A popliteal embolectomy should have been done in this case, but patients have the right of refusal.

Case 9 .- M. J., a 63-year-old white woman, was seen by her physician, Dr. R. D. Johnson, three hours before admission to the University Hospital. Pain, pallor, and paralysis of the left foot were noted. Pain extended to the knee. Femoral pulse was present, popliteal absent. One and a half grains (0.090 Gm.) papaverine were given intravenously within a few hours after admission. A left side sympathetic ganglion block was given as described in the previous case. In less than ten minutes after the block, the patient moved her foot and toes. The light purplish mottling increased for about one-half hour and then disappeared. afflicted foot was even warmer than the opposite one. Heparin was discontinued in twenty-four hours. Dicoumarin, which had been started on admission, was given as follows: January 29—250 mg.; January 30—200 mg.; January 31—100 mg.; February 2—50 mg.; February 3—none; February 3 ary 4-50 mg. Prothrombin percentages on the corresponding days were 77.1, 43.7, 29, 26.5, (next day 15.3), 25.8.

Papaverine was continued for five days in ½-grain (0.030 Gm.) doses every three hours. (Note length of time and total dosage.) Digitalization was begun under the direction of Dr. Johnson. The patient had been extremely uncooperative regarding this medication over a period of weeks before the present illness. She made an excellent recovery, was out of bed on the tenth day, and went home on the thirteenth day after admission.

Case 10.—C. J., a 69-year-old white woman, was admitted to the medical ward service of the University Hospital at 11:00 A.M. on March 27, 1943. Her present illness had begun with what was apparently an embolic episode in the right leg two weeks before, with recovery. Seventeen hours before admission she had had a severe pain and coldness of both legs, finally shifting entirely to the right lower extremity. She was transferred to the surgical service and was seen shortly after admission. There was a persistent cough with extreme dyspnea. Her condition was extremely precarious. A note, made when she was seen personally at 3:45 P.M. reads: "Arterial embolism, right popliteal. Arteriolar spasm, probably reflex, right leg. Oscillations distinct in left leg, absent in right leg (below knee). Both femoral arteries pulsating. Pulsation in right femoral seems to extend down to the profunda femoris, indicating patency rather than transmission of a proximal pulse through a thrombus. Sensation and movement normal in the left leg. Sensation dulled and movement limited to great toe, on right side. Skin of right foot blue-splotched. Apparently, lumbar ganglion block, given two and a half hours before (by resident), has had no effect. Seventeen and one-half hours before lumbar block and twenty-two hours at this time, papaverine, heparin, and dicoumarin therapy were started. The general condition of the patient and length of elapsed time are against consideration of embolectomy."

Drug dosage paralleled that given in the previous case but was without effect. The prothrombin level averaged 30 per cent for nine days. It is interesting to note that the level stayed below 39 per cent for six days after the dicoumarin was discontinued. At this time, amputation being contemplated, 500 cc. of whole fresh blood and 1,000 cc. of dilute bank blood were given to furnish prothrombin. The level rose to 79.9 per cent on the eighth day after admission. A midthigh amputation was done by the House Staff on the following day.

A Callandar amputation was begun but because of thrombosis of the popliteal artery, as diagnosed, the operators decided to remove the clot until active spurting of blood occurred. This necessitated a higher ligation and then a midthigh amputation. Fear of poor healing of the stump led to this decision. Gangrene of the leg was demarcated at the upper third of the leg. The Callender operation was eminently successful in the counterpart of this situation in Case 6.

The patient's condition gradually deteriorated and she died twelve days later. Anatomic diagnoses, postmortem: arteriosclerotic heart disease; mural thrombi left auricle; old and recent infarcts of right leg, spleen, and kidney; old myocardial infarction, recent coronary thrombosis, acute cystitis; pulmonary embolism; pulmonary thrombosis; pulmonary emphysema, and bilateral thrombosis of iliac veins.

## Summary

Once diagnosed, arterial embolism of the extremities demands immediate and uninterrupted treatment. This treatment may be divided into three phases. In the first one, papaverine is given by the attending physician, either intravenously or intramuscularly. During this phase the patient is moved to a hospital. The diagnosis of site of embolic lodgment is established. Occasionally the treatment with papaverine will be sufficient of itself. If improvement is questionable, the second phase is instituted by the use of heparin, dicoumarin, and sympathetic ganglion block. Not longer than an hour should elapse during this phase after completion of the ganglion block. Observation must be continuous until circulation is definitely established. Unless there is incontrovertible evidence of return of circulation, embolectomy is indicated.

Impressions gained by analysis of four embolectomies:

1. There was no indication that heparin infusion, started shortly before operation, is dangerous. On the contrary, its use should prevent a false sense of security regarding complete hemostasis before closure. Tiny oozing vessels, which ordinarily give no trouble, begin to bleed once the heparin effect is established. Trouble-some hematoma may result if the heparin is not

vals for six days: 0.200 Gm.; 0.200 Gm.; 0.200 Gm.; 0.250 Gm.; 0.350 Gm.; 0.200 Gm.

The importance of close cooperation between the laboratory and the clinician is illustrated in this case. Both physician and technician should be fully informed regarding methods of a technic new to both. The large doses of dicoumarin were not necessary, nor, in the light of further experience, was it necessary to give heparin for fifty-three hours. The first report on the prothrombin percentage (105 per cent) was made forty-four hours after institution of dicoumarin therapy. No report was made the following day, which was Sunday. Then the percentage was 99 per cent, 108 per cent, 110 per cent, at twenty-four-hour intervals. that something was wrong, the technician, who had made the estimations in Case 4, was called in. Venom had been used in the first estimations and the blood had been carried to another hospital for examination. Either the time loss or a deteriorated venom was at fault. The method itself is reliable. Using the Smith bedside method, the percentage was found to be 45.3 as against the 108 per cent recorded a few hours before by the venom method. The patient had been given 350 mg. of dicoumarin in the light of the reading of 99 per cent. The next day the Smith reading was 23.2 per cent while the other was 110 per cent Dicoumarin was discontinued. Twenty-four-hour interval estimations after that were 15 per cent, 12 per cent, 52 per cent, and then another, four days later, 98 per cent. Fortunately no spontaneous hemorrhage occurred. Ecchymosis was marked over both deltoids, into which the papaverine had been injected, and around the vein into which the heparin had been infused. The patient was discharged on the thirteenth day after admission, with a normally functioning foot and leg.

## Sympathetic Ganglion Block Plus Papaverine, Heparin, and Dicoumarin

It will be noted that about a year elapsed before the following groups of cases presented themselves. Whether the northern winter is a causative factor in extremity embolism is conjectural. A survey of this factor, at another time, should be of interest. The groups here reported were seen from November to March.

In a personal conversation with Dr. Alton Ochsner, professor of surgery at Tulane University School of Medicine, in April, 1942, the thought was expressed by him that sympathetic ganglion block should without exception obviate the need for embolectomy. Having Dr. Ochsner's wide experience with this method of treatment in mind, the decision was made to give sympathetic ganglion block a trial. As will be seen, it worked brilliantly in one case and failed in two. In the two failures, a fair analysis would include the possibility that the block was improperly placed. One of them (Case 7) was done by me, and Case 9 by members of a surgical Resident

Staff. In the one I handled, it will be noted that improvement occurred up to a certain point, then deterioration. Case 9, except for a slight increase in warmth to midcalf, showed no improvement at any time. In each of the following cases auricular fibrillation was present. Although digitalis had been taken previously, it had been discontinued by the patient in Cases 7 and 8, against orders, and in Case 9 because of digitalis intorication, which had occurred five months previously while the patient was on medical service.

Case 8.—M. D., a 64-year-old white woman, was examined at 12:30 p.m. on January 13, 1943, in the Syracuse University Hospital. At 5:30 a.m. she had noticed a terrific burning sensation along the back of her right calf and numbness in the foot She was unable to move the foot.

A diagnosis of embolism was made by her physician, Dr. J. R. Kallet, at 6.00 A.M. The patient refused to go to a hospital at that time. This occasioned a delay of six hours. Pulsations were absent in the right femoral and popliteal arteries at 12:30 P.M. The leg was cold to a point just above the knee. The left leg was normal. A diagnosis of embolism of the right common iliac artery was made. The patient and her family would not consider an operation but lumbar sympathetic ganglior block was accepted. Papaverine was administered in 1/2-grain (0.030 Gm.) doses, beginning immedi ately and continued for six doses at three-hour intervals. Heparin and dicoumarin were started Digitalis therapy was begun under the direction of Dr. A. N. Curtiss.

At 2:15 P.M., the sympathetic ganglion block had been completed. Ten ce, each of 1 per cent procaine solution had been injected into the twelft thoracic and first and second lumbar gangla, fo lowed in five minutes by the injection of 5 cc. of 9 per cent alcohol through each of three needle which had been left in place. Femoral pulsatio had returned at the end of two hours; the leg wa warm to a point just above the ankle, and deepressure sense had returned to the medial side of the foot. Thermocouple readings indicated that circulation might become completely re-established This proved to be a false lead.

As days passed, it became apparent that necrosi was supervening in the great, second, and fourtl toes, and the lateral half of the dorsum of the foot as well as in a small area on the lateral side of the lower third of the leg. The leg became edematou and painful. These findings, however, were not completely present until a month after admission Because of the hope that palliative treatment might save the foot, although it was paralyzed, and at the patient's insistence on further trial, another month of dressing treatment ensued. Then, with x-ray findings of damage in the first, second, fourth and fifth metatarsals, amputation at the knee was suggested and accepted. A modified Callander amputation was done under local anesthesia. The popliteal artery was found to be completely blocked by a thrombus. It was tied and severed, the thrombus left undisturbed. The stump healed per primam and the patient left the hospital two weeks thereafter. Her total hospital stay was three and a half months. A popliteal embolectomy should have been done in this case, but patients have the right of refusal.

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given until after the wound is closed. Such oozing can be seen and stopped when heparin effect is present at the time of operation.

- 2. Injection of procaine under the external coat of the artery, above and below the incision, acts much like a periarterial sympathectomy. Its routine use should be a valuable adjunct as a preventive of vasospasm during and after the repair.
- 3. Interrupted sutures are satisfactory in repair of arterial incisions.
- 4. A method of hemostasis, with minimal risk of damage to the intima, is afforded by the use of a thin-bladed, rubber-covered clamp which

can be closed to any desired pressure. Removable handles keep the wound free of unnecessary encumbrances.

At least one surgeon in every community should perfect himself in the technic of embolectomy. The physician should get the patient to a hospital without undue loss of time.

Medical Arts Building Syracuse 2, New York

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 Bancroft, F. W., and Glick, A. H.: Ann. Surg. 114: 1093 (Dec.) 1941.

## PARALYSIS FUND-RAISING APPEAL SET

January 14 to 31, inclusive, will mark the official period for the 1944 fund-raising appeal of the National Foundation for Infantile Paralysis, through the celebration of the President's birthday.

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Ever since the dedication of that day in 1934 by President Roosevelt to the fight against infantile paralysis, the American people have taken this cause of the children to their heart. They have responded in such full measure that this year—when the United States experienced the most severe polio epidemic since 1931—we were able to strike back hard at the crippler and ward off what threatened to be a vital blow at America's all-out war effort.

Unfortunately, infantile paralysis can and will strike again. We do not know what 1944 may hold for our nation in the way of epidemics. But we do know that this year its ravages were felt deeply at such widely divergent points as Texas and Connecticut, California and Kansas, Oklahoma and Oregon, as well as Utah, Washington, and Illinois.

Our duty is manifest. We must see to it that the

Our duty is manifest. We must see to it that the funds upon which such heavy inroads were made by the 1943 epidemic are replenished and enlarged to provide a margin of relief and safety for those whom paralysis has struck or may strike in the near future.

It is particularly heartening therefore to report at this time that the formation of our fund-raising organization for the 1944 Appeal is nearing completion throughout the country and in Alaska, Panama, the Virgin Islands, and Hawaii.

Thanks to the splendid cooperation of our State Birthday Celebration chairmen the setting up of our fund-raising program for 1944 has been greatly expedited. Never before in the history of the National Foundation, Director of Organization D. Walker Wear, points out, has a more favorable start been made toward a highly successful campaign.

Missouri State Birthday Celebration Chairman Robert T. Hensley was the first to send in the names of county chairmen appointees; while Arizona, under the direction of Terrence A. Carson, captures the honor of being the first state in the union to report a fully completed organization.

Word of the appointment of county and city campaign chairmen continues to reach our office with every mail, testifying not only to the zeal of the state chairmen but also to the manner in which the leading men and women throughout the country respond to the invitation to serve in their areas as

#### FOR JANUARY 14-31

front-line fighters in this continuing battle against infantile paralysis.

Successful campaigns do not spring up overnight. They are the result of comprehensive planning and the cooperative execution of those plans. Under today's conditions, with the impact of the war being felt in every community, it is especially necessary for us to wage a streamlined campaign based on our policy of "economy, sincerity, efficiency, and simplicity."

The keynote word "economy" should be kept well in mind. Regardless of how successful our 1944 campaign will be—and the toll of this summer's epidemic makes mandatory the topping of last year's results—we cannot afford to waste one iota

of the amount raised.

The 1944 "Campaign Handbook" is now on the press and will soon be sent to our Birthday Celebration chairmen. The book is a source of helpful information and will serve as a ready-reference aid in setting up to the fullest degree the efficiently functioning fund-raising organizations which will put the campaign over the top.

In this connection the value of close cooperation between campaign and chapter chairmen cannot be too strongly emphasized. Our chapters have done a magnificent job in meeting the demands levied by the recent polio epidemic. Birthday Celebration chairmen will find the chapters eager to aid in every possible way during the campaign period.

Throughout the country many of our chapter officers already are preparing the groundwork for campaign activities. Among them is Miss Catherine C. Gaule, assistant secretary of the Maryland State Chapter. Sometime ago she secured volunteer workers to assist in listing names and addresses from the telephone books of her area and addressing envelopes in which the President's birthday greeting cards will be inserted.

James F. Arbuckle, executive secretary of the Westchester County (New York) Chapter, has been active throughout the summer not only in immediate chapter affairs but has been contacting war plants in his county and arranging for labor's participation in the 1944 campaign.

Time saved in this fashion is doubly valuable. And if the fight against infantile paralysis is to continue successfully it is up to all of us to see to it that the 1944 fund-raising appeal tops all previous records.—National Foundati

## TECHNICAL PRECISION IN THYROID SURGERY

CHAS. GORDON HEYD, M.D., F.A.C.S., D.M.Sc., New York City

FOR technical precision in thyroid surgery four essentials are required: (1) a reverse Trendelenburg position on the operating table, (2) a safe, efficient anesthesia, (3) the absolute control of hemorrhage, and (4) the complete exposure of the entire operative field.

## Preparation of the Patient

The position of the patient on the operating table is of great surgical importance. With the patient in the dorsal position, a sandbag approximately 15 inches in length and 4 inches in diameter is placed transversely under both shoulders and well below the level of the seventh cervical vertebra. The sandbag, plus the raising or lowering of the headrest, allows full extension of the neck without undue traction or tension. The patient is then raised into a reverse Trendelenburg position of about 45 degrees. The feet are supported by the footrest and the patient is held on the table by a surcingle applied across the thighs just above the knees. After the patient is placed in this position, the draping of the patient is simple. The operative field is sterilized with 31/2 per cent tincture of iodine, applied to the anterior three-fourths of the neck from the lower jaw downward onto the chest to a level just above the transverse nipple line. sterile towels moistened with saline solution are wrung "dry" and crushed into a rather loose balllike mass. These are placed one on each side of the patient's neck between the shoulder and the mastoid process. Four dry sterile towels are now arranged as follows: (1) one transversely across the chest at about the level of the second rib, (2) one on each side, placed longitudinally and extending downward with their inner edge about level with the midpoint of the sternomastoid muscle, (3) and the fourth folded once on its longitudinal axis, with the folded edge draped transversely just below the chin and held in position by three towel clamps. One clamp is apphed in the midline just below the symphysis and one clamp on each side is applied to the skin just behind the angle of the lower jaw and in front of the lobule of the ear. The two lateral towel clamps also grasp the underlying sterile towel on each side. The upper leaf of the transverse sterile towel is now elevated over the patient's chin and face, and the anesthetist places his hand between the two layers of the towel and holds the patient's jaw. The lower leaf of this towel is then brought up over the hand of the anesthetist and is thereby completely excluded from the operative field. A quadrilateral space is thus exposed, bounded by four sterile towels. A laparotomy sheet with a large aperture in the center is placed over the head of the patient and the anesthetist, and attached to the usual circular headguard of the operating table, so that the hole in the laparotomy sheet is directly over the operative field. The anesthetist and the anesthetist's hand are entirely outside the operative field. If it becomes necessary, during the course of the operation, to perform artificial respiration or intratracheal manipulations, the upper half of the laparotomy sheet can be brought down over the patient's chest and the sterility of the operating field can be continuously maintained.

#### Anesthesia

A safe, simple, and adequate anesthesia is essential. It is desirable to have the patient brought to the operating room in a semisomnolent condition. The patient is given a cleansing enema the afternoon of the day before the operation, and about 9:00 P.M. of the evening of the same day he is given nembutal, 3/4 grain or 11/2 grains. The next morning, about one hour and fifteen minutes before the scheduled time of operation, a solution of paraldehyde in thin starch water is given by rectum—one cc. of paraldehyde is given per 10 pounds of body weight. If the patient is underweight (from 90 to 120 pounds) a minimum of 12 cc. of paraldehyde is given. If the patient is obese and heavy, a maximum of 16 cc. of paraldehyde is given. The paraldehyde is given in 150 cc. of thin starch water. starch water is prepared as follows: 1 tablespoonful of starch (cornstarch) to 1 pint of cold water; stir water with starch, heat slowly, stirring until it comes to a full boil.

One-half hour before operation and forty-five minutes after the paraldehyde solution has been introduced into the rectum, the patient is given a hypodermic of morphine sulfate, ½ grain, and scopolamine hydrobromide, ½ grain. Unless some of the paraldehyde solution is expelled, the patient is usually asleep by the time of his arrival in the operating room. The sleep is not deep, for the patient may be aroused on being spoken to or by changing his position on the operating table. Ordinarily the patient has no recollection of the trip to the operating room or of the operation. By this somnolence the preoperative tachycardia from tension and the trip to the operating room, etc., is avoided. After the pa-

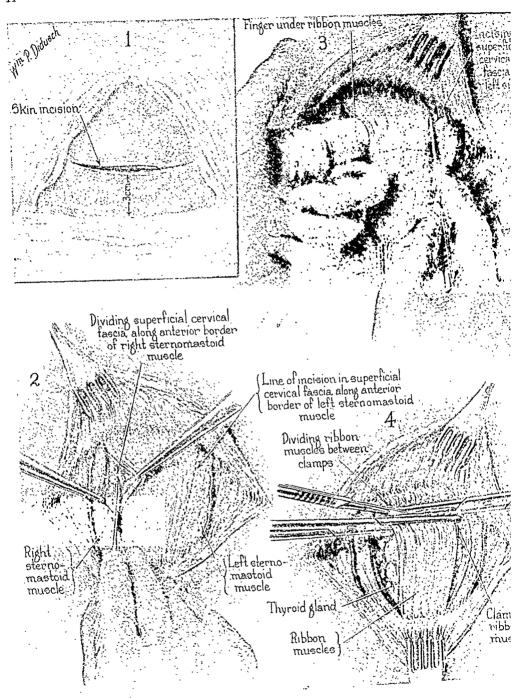


PLATE 1.

tient is placed in position on the operating table, ethylene-gas anesthesia is induced.

Operation The skin incision should always be considered from the point of view of the ultimate scar

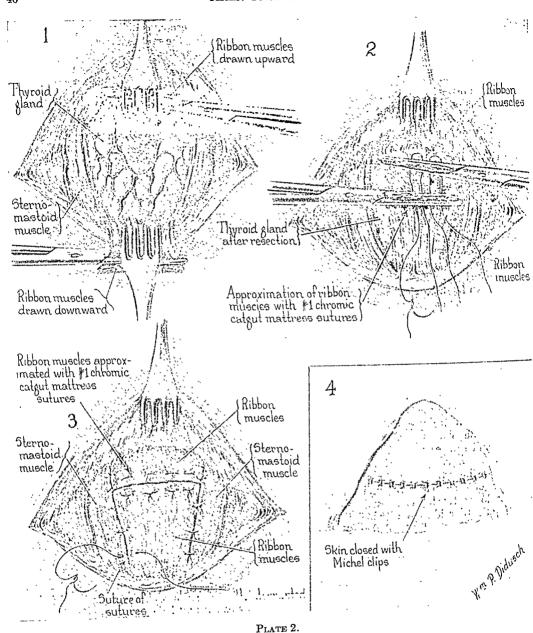
(Plate 1, Fig. 1). All thyroid incisions t be pulled or displaced downward into the part of the chest. With a neck of norms tour, the lowest point of the incision should less than 2 or 3 cm. above the sternal This incision, within a year, will descend a 1 cm. A scar lower than this cannot be covered by beads or a necklace. If the neck is enlarged, as it usually is, and asymmetrical in contour, as it usually is, the incision should be placed somewhat higher on the side of the neck that has the greater protuberance, for the descent of the scar will be greater on that side. Before beginning the skin incision, it is our custom to "saw" rapidly with a thread across the greatest anterior protrusion of the thyroid and to make the skin incision either above, through, or below the "red line" made by the thread, depending on the general shape, size, and asymmetry of the goiter.

The incision is carried down to but not through the platysma and the upper and lower flaps are developed. The lower flap is first undermined to a depth of about 1 to 2 cm.; it is usually not necessary to undermine deeper, for this will be sufficient to permit ease of coaptation in the closure of the skin wound. If the undermining is carried down further, it offers a dependent space for the collection of serum after operation. upper flap, however, is dissected upward for a considerable distance, at least above the thyroid promontory. Hemostasis is completed before any further operative procedure is carried out. A four-prong hook retractor is placed at the midpoint of the upper flap and held in the median line by the second assistant. The space between the hyoid bone and the sternum is occupied by a superficial group of two muscles, the sternohyoid and the omohyoid, and beneath these there is a broader and shorter muscle, the sternothyroid. These three muscles are called the ribbon muscles and all are innervated by the ansa hypoglossi, the fibers of which enter the individual muscles in their lower third. The usual procedure for exposing the thyroid gland is to incise the cervical fascia in the median line and then to divide the ribbon muscles on either side by applying two crushing clamps at approximately the upper third. When this procedure is completed, it is possible by traction upward and downward of the divided muscle groups, together with lateral traction, to obtain a fairly good but incomplete exposure of either side.

In the course of our experience we began to simplify this bilateral procedure by dividing both lateral groups of ribbon muscles—right and left—between two clamps, thus giving a larger and more ample exposure and leaving the operative field less encumbered, with two clamps instead of four. In addition, the goiter and thyroid gland are visualized in their entirety. With the surgeon standing on the right side of the patient, the superficial cervical fascia is divided along the anterior border of the right sternomastoid muscle for a distance of 7 to 10 cm. (Plate 1, Fig. 2). A Parker retractor is introduced and the fleshy

body of the sternomastoid muscle is pulled outward, exposing the pretracheal fascia as it moves forward from the carotid sheath to the midline. The upper belly of the omohyoid muscles will be plainly visible, transversing this space from the hvoid bone downward and outward toward the The omohyoid can usually be retracted unward. The pretracheal fascia is incised, more or less paralleling the incision along the anterior border of the right sternomastoid. The sternothyroid muscle is readily identified and its external lateral edge is picked up with thumb forceps and incised from above downward. The index finger of the left hand can then be insinuated beneath the three ribbon muscles on the right side with the palmar surface of the finger passing anteriorly over the thyroid gland and trachea. The left finger passes readily beyond the median line under the left group of ribbon muscles. The index finger is then turned so that the palmar surface is turned upward and the same incisions are made on the left side at the anterior border of the left sternomastoid muscle (Plate 1, Fig. 3). The index finger of the right hand is inserted into the cleft thus made so that there are underneath both groups of ribbon muscles—the left and right—the index finger of the left hand and the index finger of the right hand. The muscles are raised off the isthmus of the thyroid and two Kocher clamps are applied as follows: the first assistant, standing on the patient's left side and opposite the operator, inserts the upper Kocher clamp from the patient's left to right side and the operator inserts the lower Kocher clamp from the patient's right to left side: the handles of the Kocher clamps are thus placed one on each side of the patient and the two clamps are applied at approximately the junction of the upper and middle third of the muscle group (Plate 1, Fig. 4). The muscles are then divided and, with a hook retractor placed under each clamp, traction is made upward and downward, and the entire thyroid area is fully exposed (Plate

In the resection of the thyroid gland there are four procedures of great technical value: (1) the clamping and division of the lateral thyroid vein, (2) the mobilization and division of the superior pole, (3) the undermining and division of the isthmus in the median line, and (4) the recognition of the inferior thyroid artery and its division close to or within the substance of the gland. After the exposure has been made as outlined, the surgeon, standing on the right side, begins the resection by grasping, with Kocher goiter clamps, the anterior surface of the right lobe of the thyroid a few centimeters below the superior pole. By slight traction upward and toward the median line the right lobe is lifted out of its bed



By blunt dissection the lateral vein comes into view. This vessel is clamped and ligated. The division of the lateral vein allows a considerable degree of mobilization of the lobe in an anteroposterior direction. The next step is to ligate and divide the superior pole. The superior thyroid artery and vein lie upon the antero-inner surface of the gland and supply about two-thirds of the blood supply to the anterior and mesial surface of the lobe. A goiter clamp grasps the thyroid a few centimeters below the upper limit of the superior pole and with blunt dissection the superior thyroid vessels

are developed. A second goiter clamp is now applied to the superior pole but behind the superior thyroid vessels, and the superior pole is readily mobilized from behind the vessels into the field. As the superior thyroid vessels, artery, and veins come from above downward and rest on the superior pole it is very easy to enucleate the superior pole from behind the vessels and by so doing to leave the artery and veins clear and free from thyroid tissue. The effect of this maneuver is to bring the superior thyroid vessels into prominence and allows their being ligated at the beginning of

the resection, without any danger of including the superior larvngeal nerve in the ligature. With the superior pole and the lateral vein divided, the lobe is freely movable except for the isthmus. The isthmus is undermined in the median line and divided. Hemostasis is assured temporarily by using curved crushing clamps on either side of the midline of the isthmus. The lobe, freed from its isthmal attachment, is now freely movable except for the inferior thyroid vessels. The inferior thyroid artery enters the gland in a transverse direction at about the junction of the middle and lower third of the gland. By blunt dissection, the inferior thyroid artery is exposed and isolated, and ligated separately just as it enters the thyroid tissue. The recurrent laryngeal nerve is always in some anatomic juxtaposition to the inferior thyroid artery and by separation, isolation, and ligation of the artery in thyroid tissue the nerve is uninjured and usually exposed. The surgeon by this time has a freely movable lobe and with the second finger of the left hand pressing against the gland and his thumb and first finger holding one or two Kocher clamps applied to the divided isthmus, resection begins from the midline outward. All incisions are made only after hemostats are applied. The vessels are ligated, using No. 0 plain catgut. The edge of the posterior capsule with a remnant of thyroid tissue is approximated to the tracheal tissue by interrupted sutures of No. 0 plain catgut. Hemostasis must be complete and absolute before resection of the other side is attempted or the wound is closed.

If only a hemisection is performed, the operation is terminated at this point. If a bilateral subtotal resection is carried out, the other side is completed in exactly the same manner by the operator leaving the right side of the patient and moving over to the left side.

With the above exposure and technic, postoperative hemorrhage of any degree has not been a factor in the postoperative care, but the accumulation of a small amount of blood or serum in one or both sides of the thyroid space after operation will produce increasing laryngeal difficulty and strangulation. It requires but a relatively small amount of fluid retained in the space formerly occupied by the thyroid, and under the pressure of the flap muscles, to produce an alarming disability in breathing. It has been necessary to reopen the thyroid wound in three cases out of a total personal experience of about 900 operative cases. The signs of this impending danger are readily recognized. Immediately after the operation the patient recovers from the ethylene anesthesia rapidly and is encouraged to respond to direct questions. The voice sounds are then noted and recorded on the patient's chart. In the course of a couple of hours the patient's

breathing is accompanied by noisy inspiration in contrast to an almost noiseless expiration. Very soon the patient's voice becomes harshand brassy. Interference with the laryngeal nerve mechanism is imminent. When this condition intervenes. the following procedures are carried out: the Michel clips are removed from the skin wound and the skin flaps are elevated and kept elevated by sterile gauze packing. At the end of an hour the skin flaps are elevated completely and the sutures uniting the divided ribbon muscles are all divided. The ribbon muscles are then gently deflected upward and downward and some sterile gauze is lightly introduced beneath them. These graded procedures will effectively decompress the thyroid space and the picture will gradually change to one of betterment. At the end of twenty-four hours the packing is removed, and ordinarily the wound is allowed to granulate for four or five days, when a secondary suture is carried out. This graded procedure avoids the traumatizing effect of reoperation and is performed in the patient's room without anesthesia. It has been uniformly successful in our cases. It has been necessary to do a tracheotomy only twice; on both occasions the tracheotomy was performed at the time of the thyroid resection. One was a case of Reidel's struma and the other a difficult malignant goiter.

The question of drainage is always a difficult matter. It has been our custom, when only one side is operated upon and the thyroid tumor is relatively moderate in size and the hemostasis complete, to close the wound without drainage. It is well to remember that an individual who has been sensitized by long-continued hyperthyroidism is hypersensitized to serum protein and any operation for thyroidism will occasion the absorption of serum from the thyroid wounds.

If drainage seems indicated, a latex drain is inserted in one or both of the thyroid fossae and brought out of the wound at about the midpoint of the sternomastoid muscles and never emerges from the center of the wound or over the trachea.

At the termination of the resection of the thyroid the retractors are removed and the muscle groups approximated and united by three or four interrupted mattress sutures of No. 1 chromic catgut (Plate 2, Figs. 2 and 3). The closure of the wound is practically an anatomic reconstruction in the natural plane of musculature and the skin is closed by Michel clips (Plate 2, Fig. 4). One-half, or every other one, of the Michel clips is removed at the end of forty-eight hours, and at the point of removal of the Michel clip a small strip of sterile adhesive plaster, 1 inch in length and 1/4 inch in width, is placed over the skin edge to splint the wound. All the Michel clips are removed by the end of seventy-two hours and the

drains, if used, are also removed at the end of the first twenty-four hours.

The preoperative preparation of patients about to undergo a thyroid resection has been very much simplified during the last few years. It is our custom to put the patients to bed and impose absolute bed rest for a number of days before operation. The patient is put upon a high caloric diet, with protein at least twice a day, and an intravenous infusion of 1,000 cc. of normal saline plus 5 per cent dextrose, and 7 grains of sodium iodide is given daily. A cloth-enclosed icebag is placed over the heart and thyroid area at alternate hours from 9:00 A.M. to 6:00 P.M. cathartics are given but the colon is emptied each day with a milk-and-molasses enema of 14 ounces. Sedation is given in the form of 3/4 grain of luminal or nembutal three or four times a day. When it is economically possible we try to place the patient in a single room with no other occupants and limit both the number of visitors and the duration of their visits. A single basal metabolism test is taken a few days preceding the operation and that is the only determination we employ until sometime after the surgery has been performed.

With the above regimen we also are in the habit of giving the patient—if the patient has not been taking iodine—7 to 10 drops of saturated solution of sodium iodide in a glass of water after each meal. We also try to have the patient take at least 4 or 5 glasses of fluid a day, in addition to the fluid taken with meals.

It is gratifying to observe the almost uniform clinical improvement with this regimen of preoperative treatment. The determination as to

when the patient is ready for surgery is based upon the general appraisal of the improvement accomplished by the above therapy. In patients in whom the cardiac symptoms are most prominent we employ limited exercise as a means of determining the relative cardiac improvement. After four or five days of absolute bed rest the patient is permitted to get out of bed, sit in a chair for an hour, and do a little walking. The pulse is taken one-half hour before his getting out of bed, then one-half hour and an hour after he is up. After one hour the patient returns to bed. The pulse is then taken and is taken again one-half hour later and one hour later. If the pulse returns to the same rate within an hour after the patient returns to bed as it was before he got up, we feel that the heart has shown substantial improvement both in cardiac output and cardiac reserve. We believe this simple test will indicate a cardiac mechanism that will enable the patient to undergo successfully either a subtotal hemisection or a bilateral subtotal resection. We employ digitalis rather infrequently and never fully digitalize a patient. At most 11/2 grains of digitalis are given twice a day.

The postoperative treatment is almost exactly the same as the preoperative treatment.\*

## BRIGHTER OUTLOOK FOR VICTIMS OF

The life expectancy after angina pectoris (breast pang) first appears is about twice as long as has been commonly believed, Paul D. White, M.D., Edward F. Bland, M.D., Boston, and Edward W. Miskall, M.D., East Liverpool, Ohio, report in the Journal of the American Medical Association for November 27. This statement is based on what is, so far as they know, the first study of this condition that involved a large series of cases followed over an adequate length of time.

The three physicians made a follow-up study in 1943 of 497 cases of angina pectoris that were first observed in the years from 1920 to 1930. Of the 497 patients, they say, "445 are dead and 52 are still living. The average duration to death of the 445 was 7.9 years, while the average duration from onset of the disease in the living is 18.4 years. The average duration to date for the combined dead and living is 9 years, which will ultimately increase when all the present survivors succumb, doubtless to a figure approximating ten years, a duration of life about double that at present widely regarded as the expectation of life after angina

## ANGINA PECTORIS

pectoris first appears (five years or less). Seventy-six per cent of the deaths were due to cardiac causes.

A pronounced degree of nervous sensibility was a favorable influence (in survival). Angina pectoris decubitus (an attack coming on while at rest in contrast with one during or immediately following effort) was found in 103 (20.6 per cent) of the 497 cases. There were no significant differences in the average duration of the disease to death or in the living between this group and that of the group as a whole. . . . "

The three men point out that it is not only helpful for the doctor to know something of the average life expectancy in general in angina pectoris but also "for the patient himself and for his family, rather than to leave merely the impression that prediction is impossible and that the Sword of Damoeles may fall at any moment. Such a state of affairs is for many persons so paralyzing that they are prone to sit for many years awaiting the end, unable to carry on a useful or happy life, or else, hardened by the thought, they may lead a reckless existence which can in truth hasten their end."

<sup>\*</sup> In Surgery, Gynecology and Obstetrics for November, 1937, Volume 65, pages 688-689, I published "Simplified Procedure for Thyroid Exposure." A search through standard textbooks on surgery and a review of recent surgical literature did not show this procedure. Later my attention was drawn to the article by Professor Enderien in Der Chirurg. Zeitschrift für alle Gebiete der Operativen Medisin for April 1, 1932, entitled "Zur Technik der Operation des Kropfes." The thyroid exposure outlined above is similar to that described by Dr. Enderlen.

# SUBASTRAGALOID DISLOCATIONS

With a Report of Two Cases of Dislocation of Subastragaloid Joint and Fracture of the Os Calcis, One of Which Was Compounded

MAURICE CULMER O'SHEA, M.D., New York City

SUBASTRAGALOID dislocations are an uncommon but not an unusual injury. Like many fractures about the ankle joint, they are the result of a sudden powerful impact exerted against the skeletal structure and its accom-

panying ligamentous supports.

A subastragaloid dislocation may be defined as a displacement of the osseous anatomy with its accompanying soft parts distal to the astragalus (talus). This dislocation is usually somewhat oblique and may be in any one of four directions. Medial displacements are most common, and lateral displacements are somewhat less common. Backward displacements are reported as occurring in several instances, but forward displacements are most unusual. However, no matter in what direction the main displacement is, it is usually at an oblique angle.

This fact was emphasized many years ago by Da Costa¹ but has been passed over in most descriptions of cases in the literature of the past decade. An examination of the illustrations of these reported cases will bear out the accuracy of this statement regarding the usual obliquity

of the displacement.

A subastragaloid dislocation must not be confused with a total dislocation of the astragalus (talus), for in this latter condition the astragalus (talus), is completely displaced from its articulations with the bones of the leg, as well as from its articulations with the bones of the foot. This latter condition will not be considered in the scope of this paper.

## Occurrence

In 1811, Judcy<sup>2</sup> reported the first cases of this condition, but it was not until 1853 that the condition was adequately described by Broca.<sup>2</sup> In 1858 Henke added further to the description and recognition of the condition.

Deetz' in 1904, collected 72 cases of this type of dislocation. Baumgartner and Huguier, in 1907, brought the total to 85 cases, while Schand, in 1939, added other cases, so that 139 cases were analyzed. Of these, 77 were of the medial type of displacement, 46 were lateral, 10 posterior, and 6 of the forward type. In all the cases reported in the literature, there is only one other

case that was compounded and had an accompanying fracture of the os calcis. That was one reported by Bolling in 1923, in which the dislocation was posterior. Baumgartner reported in the cases collected by him that the condition occurred nine times more frequently in men than in women, but subsequently Schand, in a larger series, found the incidence to be six times as great in males. Most cases are in persons between the ages of 20 and 30.

The most recent forward displacements were reported in 1906 and 1918, and the posterior displacements in 1907, 1908, and 1923. No cases have been reported in twenty years and in thirty-five years only two have been recorded in which the displacement was believed to be anterior or posterior. After reviewing some of these cases, it is this author's opinion that some or all of these should have had their oblique displacements described as either medial or lateral rather

than as forward or posterior.

Prior to 1925 only one case had been reported in the German Army in thirty years, and Trendel reported that it occurred in only one case in ten years at Bruns' Clinic, in Germany. Eliason's states that in a series of 528 cases of dislocation only 8 were at the subastragaloid joint. From the case records of Massachusetts General Hospital and his personal experience, Wilson's reports only 9 cases, 3 of which were from four to five months old.

#### Causes

In the past the most frequent causative factors of this type of injury have been direct blows on the side of the ankle, falls, and automobile accidents. However, it remains to be seen whether when the present war is terminated and an analysis is made of the injuries sustained by the military forces how frequently this condition will have occurred among the aviators and paratroops as a result of faulty landings after long and hasty descent in parachutes.

These injuries result from a severe torsion of the foot or a wrenching of the tarsus while a powerful impact is being exerted along the line of force of the limb. The foot is usually forcefully adducted or abducted while it is at a right angle to the leg, and the displacement occurs when the violent force is exerted along the long axis. Moore<sup>10</sup> states that to produce this lesion in a cadaver the ligament from the os

From the Department of Surgery, St. Vincent's Hospital, New York City.

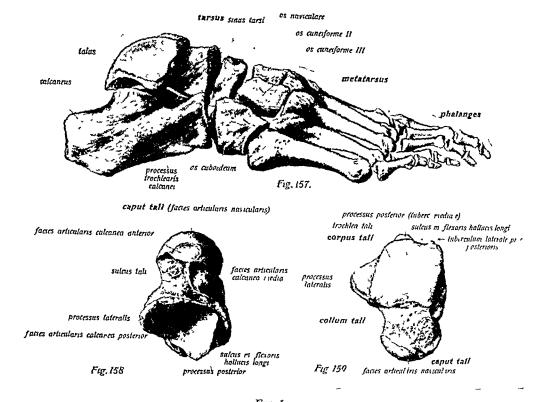


Fig 1 Fig 157 —Demonstrating osseous anatomy of foot, the subastragaloid joint, and the astragaloscophoid (navicular) joint

Fig. 158—Illustrating the irregular undersurface of the astragalus.

Fig. 159—The dorsal surface of the astragalus with its articular surfaces for the tibia and the scaphoid (navicular) bones,

(From Med J. Sobotta: Atlas der deskriptiven Anatomie des Menschen, Munchen, J. F. Lehmanns Verlag, 1925.)

calcis to the astragalus had to be cut. If this was not done, fracture of the malleoli resulted. It is an alternative injury to adduction and abduction fractures of the ankle.

# Diagnosis

This injury is difficult to diagnose by manual or clinical evamination because shortly after it occurs there is tremendous ecchymosis, swelling, and tenderness. Later, extensive bleb formation may occur. X-rays usually are necessary to diagnose the condition accurately. If the patient is seen immediately after the accident and if the condition were to be diagnosed clinically. then reduction should not be delayed so as to confirm the diagnosis by roentgenograms.

# Pathology

The deformity resulting from this injury is vast and often gruesome. In cases of medial displacement of the foot, which are the most

frequent, the external malleolus protrudes and almost pierces the skin, while the limb itself resembles a tremendous clubfoot. The circulation of the limb sometimes is impaired, while extensive ecchymosis of the skin and marked soft tissue swelling is the rule rather than the exception When the foot is crushed or the astragalus is fractured or completely displaced, the delicate nutrient blood supply of the bone itself may be damaged, and since revascularization is slow, an aseptic necrosis of the body of the talus may result. Sneed11 points out that the blood supply to this bone is relatively poor and that a transcervical fracture not infrequently results in Shrock,12 nho quotes the research work of McKeever in 1939, demonstrates that the blood supply of the astragalus is from several minute nutrient vessels which are branches of the anterior tibial artery. One branch pierces and runs along in the astragaloscaphoid ligament. where it subdivides into four branches before

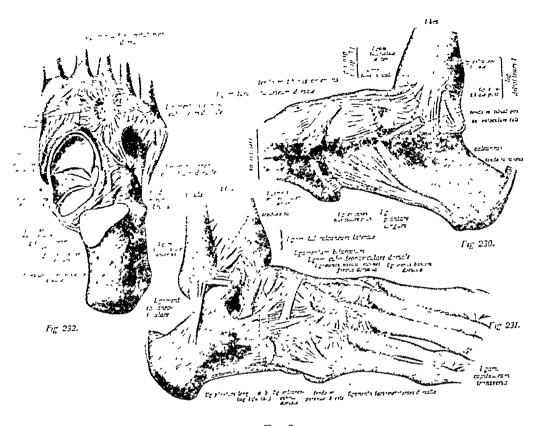


Fig. 2

Fig. 230.—Illustrating the ligamentous attachments on the medial surface of the foot and the relation of the tendon of the tibuals posticus and the sustentaculum tab.

Fig. 231—Demonstrating the great strength and distribution of the deep ligaments on the lateral and dorsal surfaces of the subastragaloid joint
Fig. 232.—Demonstrating the articulations of the astragalus, which is not visible, and the ligaments on

the dorsum of the foot.
(From Med. J. Sobotta: Atlas der deskriptiven Anatomie des Menschen, Munchen, J. F. Lehmanns Verlag, 1925.)

entering the bone on the supermedial aspect of the neck of the talus. There was no evidence that any blood vessels enter the bone from the ligaments on the posterior, anterior, and medial

aspects.

In subastragaloid dislocations the relation of the malleoli to the astragalus remains unaltered, and the mortise of the ankle joint, where some motion is still possible, is intact. The actual displacement occurs in the subastragaloid and astragaloscaphoid joints, where the distal foot, having been torn free of its ligamentous attachments, is displaced obliquely to the medial or lateral sides, sometimes slightly forward and sometimes posteriorly, depending on the nature and direction of the causative factor. The os calcis is twisted in the same direction as the foot and is not in its proper relation to the malleoli (Fig. 1).

The tendons of the digitorum longus and the tibialis posticus muscles are occasionally displaced from their grooves and interposed between the bones, making reduction difficult (Fig. 2).

The superficial cruciate ligament, which binds the dorsiflexors of the foot and toes to the other structures, is usually severely torn by the trauma, thereby permitting displacement of many tendons and at times even having its torn ends wedged in the luxated joint. When one considers the great strength, both individually and collectively, of the superficial cruciate ligament and the five deep ligaments of the joint, dislocation of it seems almost impossible. To accomplish a complete dislocation of the subastragaloid joint, the following deep ligaments must either be ruptured or torn free from their osseous attachments: the talo-

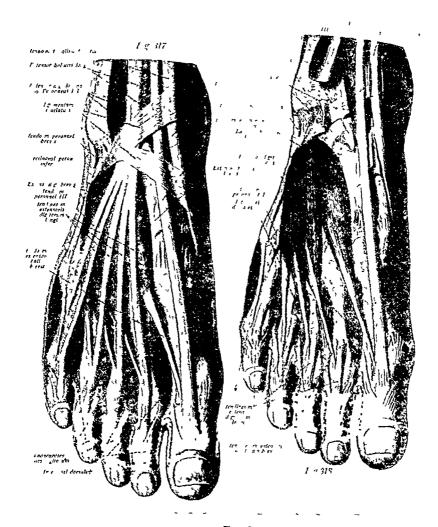


Fig. 3

Fig. 317.—Demonstrating the relations of the tendons to the superficial cruciate ligament on the dorsum of the ankle.

Fig. 318.—This ligament is usually ruptured when a subastragaloid dislocation occurs (From Med. J. Sobotta: Atlas der deskriptiven Anatomie des Menschen, Munchen, J. F. Lehmanns Verlag, 1925)

calcaneal ligament and the fibula calcaneal ligament of the lateral surface, the tibiocalcaneal and tibionavicular ligaments on the medial side, and the bifurcate ligament on the dorsal surface (Fig. 3).

The strong, long plantar ligament and the calcaneonavicular ligaments on the sole of the foot are not injured by this trauma and are held intact, thereby causing the os calcis to be displaced with the forward part of the foot.

## Complications

Fractures of the external malleolus, the articular surface of the tibia, the talus itself, and the

os calcis may occur as a result of the same force that caused the dislocation. Eliason<sup>8</sup> states that fractures of the external malleolus occurred in 50 per cent of his cases. Fractures of the astragalus have been reported by several investigators, but prior to the author's case only one other case of fracture of the os calcis was reported.

Compound injuries are not common, for in 1894 Dehoey<sup>13</sup> was able to compile a list of only 26 compound dislocations, and in 1942 Wise<sup>14</sup> added 3 more cases to the meager list. In the case herein reported the dislocation and fracture were compounded both from without by a larger wound and from within by a small puncture

wound over the malleolus. Skin necrosis may occur early in some of these cases unless they are adequately reduced. Laget<sup>15</sup> reported a case in which skin necrosis compounded the injury within four hours, while some other authors have disclosed that they found the skin in good condition when the dislocation had not been reduced in five or more weeks. Compounding occurs in about equal frequency whether the dislocation is lateral or internal and results from the skin's being too tightly stretched over the head of the astragalus and the malleoli.

Infections are a rarity among the more recently reported cases, although a decade or two ago this complication was more frequent and in the opinion of the surgeons usually necessitated an astragalectomy.

#### Treatment

This injury must be adequately treated and reduced at the earliest possible moment. Speed in reduction is even more important in this type of injury than in almost any other type of dislocation or fracture because of the rapidity with which necrosis of the skin frequently occurs in the tensely drawn skin stretched over the head of the astragalus, and because circulatory impairment is not uncommon. The reduction must be not alone for the dislocation but also for any fracture that might complicate the condition if a good and painless functional result is to be Complete reduction cannot be accomplished unless all the muscles are adequately relaxed by a general or spinal anesthetic. To assist in this relaxation of the muscular structures about the ankle, the knee joint should be fleved, thereby further relaxing the pull on the achilles tendon by the gastrocnemii muscles. With the knee fleved and the leg adequately fixed or held, traction should be exerted on the foot along the long axis of the limb for several minutes. Then an attempt should be made while traction is still being exerted, first, to increase the deformity slightly and then with counter pressure against the talus to manipulate the bones back into alignment. When reduction is accomplished, it is usually accompanied by a quite audible snapping sound. Immobilization in a plaster cast extending from the midthigh to the toes, keeping the knees lightly flexed and the foot at a right angle to the leg, should be maintained for eight weeks. If the displaced tendon of the posterior tibialis muscle prevents reduction, it may become necessary to divide it, or if some of the torn fragments of the cruciate ligaments should become interposed, an open operation may be necessary. Since the availability and efficacious value of the sulfonamides have been realized, frank infections seldom, if ever, occur and the resultant

astragalectomies previously advocated under such circumstances no longer have been necessary. In compound injuries adequate débridement and the generous use of sulfonamides in and about the wound are indicated.

Unless reduction is accomplished within the first few days after the occurrence of the dislocation then an open operation will usually be necessary to accomplish the purpose successfully. However, if several weeks should pass before reduction transpires then an arthrodesis of the subastragaloid joints will invariably be necessary if a painless, stable, weight-bearing pedal extremity is to be the lot of the afflicted person.

If early successful reduction is possible, the patient should be permitted to bear weight on the foot after the eight-to-ten-week period of immobilization in plaster. In the ensuing weeks of convalescence the proper use of physiother-apeutic measures will accelerate the absorption of the inflammatory reaction and reduce the edema in the neighboring tissues, thereby helping to increase the range of motion in the injured limb.

## Prognosis

Those cases that are reduced early and without instrumentation have an excellent prognosis for a good, useful, and painless joint for life. However, this prognosis becomes increasingly less favorable when there are complicating fractures, infections, and delayed reductions.

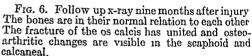
## Case Reports

Case 1.—Mrs K E, aged 33, a housewife, was admitted to St Vincent's Hospital at 4 25 a.m. on March 22, 1942 She gave a history of having been mjured while driving her automobile along the highway when she was crowded off the road and crashed into the steel-retaining walls of the roadway. She was pushing hard on the brake with her right foot, and as she crashed she felt something snap in her ankle. She suffered injuries to her right ankle, right elbow, and nose.

Physical Examination - There was a small horizontal laceration one-half inch below bridge of nose but no fractures. Right elbow: Several superficial abrasions of elbow area of the right elbow but no The right foot was displaced medially and the astragalus could be felt prominently under the skin of lateral aspect. The injury to the ankle was compounded both from within (puncture wound under lateral malleolus) and from without (laceration and abrasion) on the dorsal lateral aspect of foot. One laceration was transverse on the dorsal lateral surface of the foot and measured 11/4 inches in length. A second smaller laceration measuring 1/2 inch in length was located on the lateral aspect of the foot over the malleolus. There was an enormous swelling of foot and ankle, and a considerable amount of swelling was reduced by expressing several



Fig 4. X-rays showing oblique medial dislocation of the subastragaloid joint. Foot is displaced medially and slightly posteriorly. The fracture in the anterior-superior portion of the os calcis is visible.



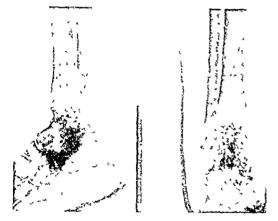


Fig. 5. Postoperative x-rays showing a complete reduction of the subastragaloid dislocation The fracture of the os calcis is visible

ounces of blood from the wound. The foot was adducted in a varus position and resembled a massive clubfoot.

X-Ray Examination.—X-rays of right foot show evidence of medial and posterior dislocation of the foot at the subastragaloid joint and fracture of the os calcis in its anterior superior portion (Fig. 4).

Laboratory Examination.—The urine, the blood count, and the Kahn test were normal.

Operation.—The diagnosis of compound fracture of the os calcis and compound medial dislocation of the subastragaloid joint having been made, an attempt at reduction of the fracture was made within two hours of the time of injury.

.Under cyclopropane, ether anesthesia, the skin

was scrubbed and cleaned, débridement of wound was performed, several ounces of blood were expressed from wounds, sulfanilamide powder was implanted in wound before suturing, and the surrounding skin was covered with same drug and with sterile dressings. Then when patient was deeply anesthetized the knee was fixed at an angle of 45 degrees, steady traction along the long axis of leg was made for five minutes, before manipulating the foot by temporarily slightly increasing the deformity and then with counter pressure over the lateral side of the astragalus manipulating the displaced bones into proper alignment. As the dislocation was reduced, a quite audible "snapping" sound could be heard in the operating room. Dorsiflexion of the foot was now possible. The foot and leg were immobilized in plaster-of-paris posterior and sugar-tong splints

Postoperative x-rays showed the dislocation to be reduced with the bones of the foot in their normal relationship. The fracture involving the anterior superior portion of the calcaneal bone showed slight separation of the fragments (Fig. 5).

The patient was returned to bed and the leg was elevated on two pillows. She received six doses of combined gas gangrene serum and tetanus antitoxin and was given adequate doses of sulfathiazole by mouth each day. During the following three days her temperature remained at about 100 F., and on the following postoperative day it was normal. At this point, contrary to the advice of the hospital staff, she signed the responsibility book and left for home in a neighboring state, where she placed herself under the care of a Dr. W. Here proports that the wounds healed cleanly, that he removed the cast on May 2, 1942, six weeks after the injury, that she regained good function and use of her foot about July 17, 1942; that pain and disability were not improved from May 2, 1942, to June 30, 1942, dur-

ing which time normal exercises and diathermy were given, that recovery of function was markedly accelerated by daily treatments of pulsating galvanic surge (B2), which was given from June 30, 1942, to July 17, 1942, at which time the patient was discharged in good condition

Follow-Up Examination on December 8, 1942.— The patient states she can walk normally and is free from pain except at certain changes in the weather Physical examination revealed that both wounds were well-healed and that there was no swelling present in ankle or foot. Motion in the foot was as follows: dorsiflexion, 10 degrees beyond a right angle, plantar flexion, normal; abduction, 10 degrees, adduction, 5 degrees; and inversion was limited to about 5 degrees It was our opinion that weight-bearing was allowed at a very early stage of her convalescence, considering the fact that she also had a fracture of the os calcis Follow-up x-ray of the right foot and ankle, on December 8, 1942, showed that the fracture involving the anterior superior margin of the os calcis was united and that there were moderately advanced arthritic changes at the opposing surfaces of the scaphoid and calcaneal bones (Fig. 6).

Case 2 -W. N, aged 56, a painter who was working on a twenty-foot-high scaffolding on October 10, 1943, when it toppled over, suffered marked mushrooming of the comminuted fractures in both of his calcaneal bones and a lateral-anterior dis-location of his right subastragaloid joint. The patient was not operated on immediately after the injury, as the doctor who first treated him failed to recognize the presence of the dislocation and simply immobilized both fractured os calces in plaster boots

Physical Examination —Patient was in mild shock after the accident. In the ensuing weeks the skin did not show any evidence of circulatory impairment as the lateral displacement was not marked, but there was considerable ecchymotic swelling of the whole of both tarsal and ankle areas

X-Ray —X-ray revealed the navicular (scaphoid) bone to have been dislocated dorsally and laterally and rested on the dorsal surface of the neck of the astragalus, which was displaced downwards was considerable communation of both os calces, with multiple fracture lines entering the astragalocalcaneal joint

Operation —An open reduction of the dislocation of the right astragalo-navicular joint and an arthrodesis of all the right subastragaloid joints were performed three weeks after the injury. At a subsequent operation the left subastraguloid joint was fused because of the comminution and displacement of the fragments of the os calcis. At the time of this writing the patient is still confined in St. Vincent's Hospital with both legs in plaster casts. He is free from pain, and postoperative v-ray reveals good position of bone fragments

## Conclusions

Subastragaloid dislocations are uncommon injuries which result from a severe impact to the foot while it is forcefully adducted or abducted

The great embarrassment and impairment of the circulation make early reduction under general anesthesia imperative. Delayed reduction may result in necrosis of the skin and comnounding of the lesion.

The limb should be immobilized in plaster from the thigh to the toes for from eight to ten weeks, following which time weight-bearing should be encouraged.

The prognosis for a painless, useful foot is good if reduction is accomplished early.

Two cases of subastragaloid dislocation complicated by accompanying fractures of the os calcis are reported.

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# PUBLICATIONS TO USE METRIC SYSTEM

The A. M. A. has announced that future editions of New and Nonofficial Remedies, Useful Drugs, the Epitome of the U.S. Pharmacopoeia and National Formulary, and Interns' Manual (with the consent of the of the Council on Medical'Education and Hospitals), as well as other Council publications, will give quantities and dosages exclusively in the metric

This procedure is in harmony with the growing and current practice of prescribing vitamins, hormones, and sulfonamide preparations Council's concise historical presentation of the The units of measure formerly in common use empha-

sizes the value of adopting a uniform method of presenting quantities and dosages While daily by grains and barley corns, the kingly nose and regal thumb, and the combined length of the left feet of "sixteen men who lined up heel to toe as they left church on a Sunday morning," workers in the exact sciences appreciate the value of the simplicity, convenience, and precision of the metric system. Universal adoption of this system will be a manifestation of rationality and of interprofessional and international cooperation great practical utility.—J.A.M.A.

## NUTRITION OF THE INDUSTRIAL WORKER IN THE UNITED STATES AND ABROAD

Ross A. Gortner, Jr., Ph.D., Washington, D.C.

CINCE the entry of the United States into the present world conflict, more and more attention has been given to good nutrition as a means of improving the health, morale, and productivity of the civilian population. In this respect this country lagged behind Germany and Britain, who recognized early that the man in the factory or in the mine was as bound up in the future outcome of this conflict as the man in the trenches. The advent of mechanized warfare has made the success of an army more than ever dependent upon production on the home front.

Although it has long been held by nutritionists that a poor diet reflects itself in the health and well-being of workers, this aspect has not, until recently, received much attention from the workers or even from most industrial health officers. Little work has been done on the effect of nutrition on the productivity of industrial workers while on their jobs, but it has been observed that production is invariably highest right after meals, and workers who omit breakfast produce at a considerably lower level during the morning hours than do those who eat three meals.1 Other studies 2,3 have shown that supplemental rations of bananas or cod liver oil and milk given between meals markedly reduced absenteeism of women employees. Various other reports have stressed the importance of certain vitamins for offsetting fatigue 4,5 and partially protecting the worker against exposure to toxic chemicals.6

In 1916, at the request of President Wilson, the National Research Council was established under the National Academy of Sciences to serve as a quasi-official advisory body to all branches of the government, including the armed forces. In November of 1940 the Food and Nutrition Board of the Council established a Committee on Nutrition in Industry (now the Committee on the Nutrition of Industrial Workers) to study the diets of industrial workers and the prevalence of malnutrition in this group, about which little was known. Some of the problems facing this Committee were: (1) to make extensive surveys of the adequacy of the meals chosen by workers; (2) to determine the actual nutritional status of workers based on blood and urine analyses

and inspection for various pathologic changes; (3) to study the adequacy of feeding facilities in or around the many rapidly expanding or newly constructed war plants; (4) to investigate the desirability of allocating special rations of certain types of foods to workers performing very heavy manual labor, etc.; and (5) to ascertain the extent of loss or destruction of vitamins during the preparation of food in industrial food services.

Although much remains to be done, a good beginning has been made. In the summer of 1941, Dr. Robert S. Goodhart, vice-chairman of the Committee, visited more than 30 large industrial plants and inspected the lunches selected by the employees. He found that only 10 to 25 per cent of the workers chose milk and that the majority chose poorly balanced meals even when a good selection was available.

In an extensive study of the diets of 1,103 male workers in a large California aircraft factory, Wiehl observed that only 2 per cent of the diets were equal to or but slightly below the recommended amounts for five groups of foodsnamely, green or yellow vegetables, citrus fruits or tomatoes, milk, eggs, and lean meat or fish. More than half of the diets were far below the recommended amounts in two or more of these groups. In terms of specific nutrients, the following were most frequently inadequately obtained: ascorbic acid, riboflavin, calcium, vitamin A, and thiamine. The yardstick used in calculating these desired amounts was the Recommended Dietary Allowances adopted by the Food and Nutrition Board in May, 1941.8

The actual nutritional status of various population groups, as determined by clinical observation or analysis, is at present being actively investigated. Preliminary findings by Borsook9 on approximately a thousand aircraft workers in California showed that 42 per cent had low plasma ascorbic acid levels (less than 0.5 mg. per 100 cc.); 19 per cent showed signs of premature nerve degeneration, based on loss of sensitiveness of the toes to the vibrations of a C-256 tuning fork; 47 per cent showed conjunctival evidence of vitamin A deficiency (Bitot's spots); 28 per cent had hemoglobin levels below 14 Gm. per 100 cc.; and riboflavin deficiency, as evidenced by characteristic capillary invasion of the cornea, was almost universal.

A group of biochemists at Emory University in Atlanta is at present engaged in studying the

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nutritional status of hundreds of subjects based on vitamin analyses of blood and urine. Although their results are still too incomplete for accurate conclusions to be drawn, they have uncovered some interesting facts. A large percentage of the subjects examined fell below the accepted vitamin standards, and nearly all subjects who measured high in vitamins drank milk regularly. As might be expected, people in bad health showed up poorest, and professors and medical students, who knew what constituted a balanced diet, showed up the best. Approximately half of a group of draftees fell below the standard.

I have cited data indicating that a large proportion of the working population fail to receive an adequate (or optimum) diet. Are we justified in saying that a man may be malnourished when he shows no objective signs of specific nutritional deficiency? At a meeting of the Food and Nutrition Board of the National Research Council in New York City three weeks ago. Dr. Lydia Roberts gave an illuminating report on Puerto Rico, where she had recently spent six weeks studying the diets and nutritional status of the populus. Although she found the dietary habits and food situation to be very poor and the native population to be definitely malnourished, still there were very few obvious symptoms of deficiency of any specific nutrient. This confirms other observations that multiple dietary deficiencies usually inhibit the development of specific deficiency symptoms. Only recently Ivy and coworkers10 reported on the decreased work output of medical school students when transferred from a normal adequate diet to one which was deficient in B-complex vitamins. Although all subjects on the deficient diet for two months showed a marked decrease in work output as measured on a bicycle ergometer, at the same time there were no objective evidences of vitamin B deficiency other than lack of pep, anorexia, and the early development of leg pains during exercise. These are all symptoms which would normally pass unnoticed or be attributed to other causes.

What are the reasons for the apparently widespread incidence of malnutrition? They are somewhat different today from what they were a few years back. However, then as now, the main factors are primarily poor food habits, ignorance, poverty, and inefficiency in equitably distributing foods. The urban dwellers in the lower economic brackets are accordingly hardest hit, and it is largely from this population group that the industrial workers are drawn. When war came and industry began to mushroom, the demand for workers caused incomes to soar. This prosperity was reflected in a nearly 40 per cent increase over the past six years in money spent for food, and this has necessarily been accompanied by some improvement in the national diet.

However, this mushrooming of industry has presented a serious problem from the standpoint of providing adequate eating facilities for work-This problem was recognized by the National Nutrition Conference for Defense which was called by the President and held in Washington in May, 1941. At that time it was recommended that all contracts calling for the construction or expansion of defense plants should include provisions for facilities to feed adequately the employees. However, such facilities are today either inadequate or lacking in many plants. This is especially serious where many thousands of men migrate to a new plant in what was a sparsely settled area just a few months before. In such locations the eating places outside of the factory are usually wholly inadequate. Steps are being taken to counteract this situation.

The barrier of ignorance as to what constitutes a good diet is slowly being pushed aside. A widespread interest in nutrition has developed among the workers and their families, management, and communities. It has also extended to the industrial physician, who not so long ago too frequently felt that the diet and nutrition of workers did not fall within his scope. Now the American Association of Industrial Physicians has an active committee dealing with just this subject of nutrition in industry. Various concerns (Westinghouse, General Electric, and Servel are a few) have had remarkable success in stimulating community interest and enthusiasm by forming clubs, having regular meetings with demonstrations by dieticians, circulating pamphlets containing lists of attractive menus and other useful information. etc.

The Nutrition in Industry Division of the Nutrition and Food Conservation Branch, War Food Administration in Washington is actively concerned with promoting proper eating conditions and the serving of nutritious meals in industrial plants. In this capacity they have aided the establishment of effective programs of nutrition education for employees, have provided information on posters, pamphlets. news releases, programs, etc., and have suggested cafeteria and canteen menus which provide the worker with necessary foods compatible with food shortages, rationing, and reasonable cost.

Food as served is rarely nutritionally comparable to the fresh product. Losses in food value occur all along the line during storage, processing,

cooking, and serving. With respect to some factors, losses in the preparation of foods for mass feeding may be enormous. Recent assays11 of the thiamine, riboflavin, and ascorbic acid content of a "daily special" meal taken off the serving table during the regular meal period in a large industrial cafeteria in New York revealed that 92 per cent of the thiamine and 82 per cent of the ascorbic acid were lost during preparation. Much of this loss of nutrients is unnecessary and may be avoided by following a few simple rules such as (1) using fresh fruits and vegetables as soon as possible after delivery and keeping them cool and crisp prior to serving raw or cooking, (2) cooking such products quickly with little water and minimum exposure to light and air so that vitamin losses are not accentuated. (3) serving promptly without long periods of standing on steam tables or in warmers, and (4) using short cooking methods (sautéing or broiling) for meats or roasting at low temperatures.

So far I have said little about the nutritional situation of workers abroad. Britain has marked shortages of such protective foods as milk, eggs, and citrus fruits—all of which have been considered as "must" constituents in the American dietary. Nevertheless, the British seem to be getting along despite the fact that most of the population has dropped down 5 or 10 pounds to a rather stabilized "war weight."

Much credit is due the British system of food control<sup>12</sup> which has been successful in obtaining an adequate and even flow of foods into distribution channels and in distributing these equitably to all individuals and classes in the community.

The problem of whether special rations should be given to different groups of workers in Britain was widely debated, but it was finally decided that, because of the difficulty in classifying workers according to the nature of their work, all individuals should receive the same ration regardless of whether they performed light or heavy labor. Increased supplies of certain foods are, however, made available to canteens and restaurants which cater largely to industrial workers. Where the nature of the work is such that canteen facilities cannot be provided, special cheese allotments are granted. Children receive a smaller meat ration than adults, but the government has resorted to subsidies to make, among other things, milk, eggs, and oranges available to children. Cod liver oil and orange juice are supplied free to young children, and mothers and children are given priority for obtaining milk at a reduced price.

Various foodstuffs have been fortified, but this program has not gone so far as it has in this country. Margarine is fortified with vitamins A and D, while bread has added calcium. All bread is made from 85 per cent extraction flour.

An extensive program of communal feeding has been set up in the schools, factories, and mines which provide the workers with good mid-day meal facilities. Early in the war the Minister of Labor ordered that canteens be established in all plants employing more than 250 workers. It is hoped that these facilities will be retained after the war.

Finally, the Ministry of Food has been conducting a widespread educational campaign among consumers, stressing the nutritive value of foods and the needs of the body, and instructing housewives in the best methods of preparing foods.

A striking example of the effects of "nutritional conditioning" on building up health and physique is the result obtained by the British Army with would-be recruits. A group of more than 800 rejectees was given an optimum diet, plenty of sleep, hard physical work, and healthy recreation. As a result, 87 per cent of these men were later accepted by the army, while only 5 per cent were discharged on the grounds of medical defects.

In Canada, as in this country, the war has caused a shift in the population from rural areas and small towns into industrial centers. Although no actual studies have been made on Canadian workers as a group, much may be inferred regarding their nutritional status from several surveys14 which have been performed within recent years on urban populations. These showed that the workers' diets were markedly deficient in the protective foods, foods which supply the needed vitamins and minerals. Deficiencies were noted in vitamins C, A, and the B vitamins; calcium and iron were frequently far too low; even the protein and calorie intakes were insufficient in some instances. The new industrial boom has in some respects changed the eating habits in a detrimental way. Many workers rush off with little or no breakfast to plants where it is difficult, if not impossible, to get an adequate lunch. The overall picture is analogous to what we have in the United States.

A year and a half ago the Department of Pensions and National Health in Ottawa established a new branch called Nutrition Services to attack the problem of malnutrition among the whole population and especially among war workers. It is the function of Nutrition Services to: (1) see that war plants get adequate food facilities; (2) make available expert opinions and nutritional information to other branches of the government; (3) sponsor and advise on research pointed toward informing and protecting the people; (4) generally aid the public to

improve nutrition in the home by advising through propaganda leaflets, speakers, etc., on the production, purchase, and preparation of foods. Much credit is due Canada, and Dr. L. B. Pett, in particular, for the rapid strides that have been made in improving nutrition in industry in that country.

In conclusion, the nutritional status of industrial workers in this country is, at present, far from satisfactory, but the problem is being actively attacked and progress is being made. Information which is being accumulated on the incidence and causes of malnutrition is aiding in the formulation of steps for combatting this condition. The people are becoming conscious of their diet, industries are becoming aware of the importance of having their employees nutritionally fit, and the government is putting its shoulder to the wheel to enable and encourage industry to adequately feed its workers in these days of rationing and priorities. The nutritional progress which is being made during this period of national emergency should not only materially aid the war effort but it should also play an even larger role in establishing and maintaining a lasting peace.\*

\* For discussion by Dr. Edward S. Rogers see page 65.

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# SCIENTIFIC BASIS FOR THE RECOMMENDED DIETARY ALLOWANCES

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EARLY in 1941 the Food and Nutrition Board of the National Research Council set forth a table of recommended allowances for the various dietary essentials (see Table 1). These allowances were accepted by the National Nutrition Conference which assembled in Washington in May of that year, and since that time they have been universally used in nutrition programs throughout the country. They have also been adopted in Canada and to some extent, at least, in England. The purpose of this paper is to outline briefly how the values were arrived at and the scientific basis for the levels used.

Soon after its formation, the Board realized the need for such standards, both for the guidance of those responsible for feeding the armed forces, and for workers engaged in nutrition work with the civilian population. It is true that numerous standards had been set up by individual workers or groups, but these varied widely in completeness and in the amounts of a given dietary essential recommended. For example, estimates for requirements of vitamin A ranged from 1,000 to 10,000 I. U.; for ascorbic acid from 30 to 120 mg.; for thiamine from 0.75 to 3 or 4 mg., and similarly

Read by invitation at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 4, 1943. From the University of Chicago, Chicago, Illinois.

widely for other nutrients. It was realized that requirements cannot be definitely established until much more experimental work is carried out, but it seemed desirable to survey the evidence and to derive a table of allowances that would represent, so far as possible, the combined judgment of nutrition authorities and thus be more widely accepted and used. A committee of the Board was appointed to undertake this

The procedure consisted of two major steps. First, the published evidence on the requirements for the different factors was critically examined and appraised. In addition, requests were sent to a large number of nutrition authorities, particularly those doing research in this field, for their judgments as to the requirements for any factors for which they had any experimental or other basis for a decision. From the evidence thus assembled, tentative allowances were set up. These were then submitted to all contributors, as well as to all members of the Board, for criticism. On the basis of the replies the allowances were reformulated, resubmitted to contributors, again revised, and after discussion and final revision by the Board, adopted in their present form. The values as accepted. therefore, represent the consensus of more than

TABLE 1.—RECOMMENDED DAILY ALLOWANCES FOR SPECIFIC NUTRIENTS\* Committee on Food and Nutrition, National Research Council mg. = milligram (1 milligram = 1,000 micrograms) I. U. = International Unit

Mr. 150 Y		Calories	Protein (grams)	Calcium (grams)	Iron (mg.)	Vitamin A† (I. U.)	Thiamine (B <sub>1</sub> ) (mg.**)	Ribo- flavin (mg.)	Nicotinic acid (mg.)	Ascorbic acid (mg.**)	Vitamin D (I. U.)
Man (70 Kg.)  Moderately active  Very active  Sedentary		3,000 4,500	70	0.8	12	5,000	1.8 2.3	2.7 3.3	18 23	75	(1. U.) \$
Woman (56, Kg.) Moderately ac-		2,500					1.5	2,2	15		
tive Very active Sedentary		2,500 3,000 2,100	60	0 8	12	5,000	1.5 1.8 1.2	$\frac{2.2}{2.7}$	15 18 12	70	5
Pregnancy (lat- ter half) Lactation		2,500 3,000	85 100	1 3 2 0	15 15	6,000 8,000	1.8	2.5	18	100	400-800
Children up to 12 years;			200	- 0	10	3,000	2,3	3.0	23	150	400-800
Under 1 year‡ 1-3 years § 4-6 years 7-9 years 10-12 years		100/Kg, 1,200 1,600 2,000 2,500	3-4/Kg. 40 50 60 70	1 0 1 0 1 0 1 0 1 0	6 7 8 10 12	1,500 2,000 2,500 3,500	0.4 0.6 0.8 1.0	0.6 0.9 1.2 1.5	4 6 8 10 12	30 35 50 60	400-800 ¶
Children o years: Girls,		2,000	70	1 ()	12	4,500	1.2	1.8	12	75	
years	16-20	2,800	80	1.3	15	5,000	1.4	2.0	14	80	7
years Boys,	13~15	2,400	75	1 0	15	5,000	1.2	1,8	12	80	
years	16-20	3,200	85	1.4	15	5,000	1.6	2,4	16	90	5
years		3,800	100	1 4	15	6,000	2.0	3.0	20	100 ,	

. :... \ reater if provided chiefly as the pro-vitamin carotene.
are for approximately 6-8 months. The amounts Needs of infar

of protein and calciu § Allowances ar ¶ Vitamin D is

5, 8, etc.), and for moderate activity. When not available from sunshine, it should be

provided probably up to the minimum amounts recommended for intants.

50 nutrition authorities as to the best allowances to use until ones derived from more experimental evidence can be obtained. It was understood that they would be revised from time to time as more knowledge on any of the factors becomes available. That time has now arrived, and after three years of use, a thorough rechecking of evidence with the view to consequent revision is now being undertaken by the Committee.

## Accepted Values

It is not possible within the limits of space available to review fully the scientific evidence on which each of the allowances is based for all ages and conditions, but some of the considerations that led to the choice of values will be briefly outlined.

Calories.—The caloric allowances for adults are the usually accepted ones for the traditional "average" man and woman of 70 and 60 Kg., respectively, and for moderate levels of activity. The values for children are based on a compilation of all energy studies in the literature1 and on a preliminary analysis of unpublished studies of

several hundred children made by Roberts and Blair. There will be some adjustments in these values when more detailed analysis is made of the data, but used with judgment they are reasonable as they now stand.

The calories required will at all age levels vary above or below these allowances in the proportion that the individual varies from the average in size and activity. Recognition of this fact is especially important in adolescence where the variation in size and activity is the greatest. Thus a small, relatively inactive boy of 15 years may need only 3,000 calories, while a large, very active one of the same age may require 5,000 calories or more. Fortunately, in the case of calories, the appetite usually takes care of an increased need if adequate food is available, and if there is a deficit, it is reflected in a loss of weight or failure to gain. Tables of caloric requirements are useful chiefly in planning food allowances for institution groups or for families under care of welfare agencies. Even here they should be used only as rough guides. For individual children the best guide to the calorie needs is the amount the appetite demands,

providing the adequacy of intake is indicated by normal growth and sufficient amounts of fat and muscle "padding."

Protein.-The protein allowances for adults are based on the standard of "one gram per kilogram," advocated by Sherman,2 which is widely accepted and used as one that provides a reasonable margin of safety. The higher allowances for pregnancy and lactation are supported by the work of Macy and Hunscher,3 et al., Coons.4 and others, who have shown that growth of the fetus and adnexa in pregnancy and the demands for milk production in lactation markedly increase the protein needs. This increase begins in the latter half of pregnancy and is greatest in lactation when milk production is at its height. The quantities given in the table are indicative of the relative needs, rather than accurate requirements, for these vary greatly with the size of the individual.

The allowances for children are derived from an unpublished compilation of balance studies on children of all ages, as found in the literature. These indicate that protein intakes per kilogram on which good positive balances have been obtained decrease from about 4 to 3.5 Gm. in infancy; 3.0 to 2.5 in early childhood; and to 2.0 to 1.5 in late childhood and adolescence to the adult standard of 1.0 Gm. The total amounts given in the table represent approximately these values. They also provide for about 15 per cent of the total calories from protein. actual amounts required will vary with the size of the individual and also with the quality of the protein. An infant fed on breast milk, for example, thrives on a protein intake much lower than the standard here given, apparently because of the superior quality of human milk proteins. It is probable that the allowances given are considerably above actual requirements and represent rather amounts which it is desirable to supply, and which, moreover, can be readily attained in dietaries which provide adequate amounts of other nutrients. In planning practical diets, provision should be made for some of the protein to come from animal sources, in order to insure adequate intake of all essential amino acids.

Calcium.—The calcium allowance for adults was increased somewhat above the widely used Sherman standard of 0.67 Gm. per day.<sup>5</sup> Two lines of evidence suggested the need for this increase. The first is that supplied by Leitch.<sup>6</sup> By a series of calculations on metabolic data from the literature, she concluded that 0.55 Gm. might be considered about the maintenance level since at this intake equilibrium was attained in half of the studies analyzed. Allowing a 50 per cent increase above this for safety would give a

standard of 0.83 Gm. The second line of evidence is found in the work of Steggarda and Mitchell, and Outhouse et al., at the University of Illinois. These workers found that 10 out of 13 adult subjects were in equilibrium on 9 to 10 mg. of calcium per kilogram, while the remaining a required somewhat more. Using the 10-mg. value, the total for a 70-Kg. man would be 0.70 Gm. It is obvious that the standard should be somewhat above this. The allowance was therefore tentatively set at 0.80 Gm. for the 70-Kg. man, a value close to the one derived from Leitch's data.

The standards for women were set at the same level as for men, in spite of their smaller average size, in order to insure ample stores in preparation for the possible drains of maternity. The allowances for pregnancy and lactation are much higher in order to provide for the growth of the fetus and for the large amounts needed for milk production. These increased needs are indicated by the work of Macy et al., Coons, and others. As in the case of protein the precise values given may not be justified, but they are correct in indicating the need for greatly increased intakes of calcium during these periods.

Although numerous calcium balance studies have been carried out on children, only a few have been done from the standpoint of determining the requirement, and these have dealt largely with the preschool age. In arriving at the calcium allowances, special consideration was given to the more recent studies of Daniels¹ and of Outhouse et al.,¹¹o on preschool children, and of Wang¹¹ on adolescent girls. The earlier studies of Sherman and Hawley,¹² Wang et al.,¹³ were also evaluated, as were likewise the calculations made by Leitch⁶ as to the probable requirements during the period of growth.

In the study by Outhouse on 10 preschool children the stores of the subjects were first saturated by feeding a high amount of a calcium salt, and then the level adjusted downward to determine the lowest intake that would insure maximum retention. Three levels were tried. 370, 615, and 880 mg. The results showed that 615 mg. was definitely better than 370 mg. and as good as the higher amount and might therefore be termed the requirement of a preschool This is a little more than the amount contained in a pint of milk. This result is in accord, moreover, with those of Daniels and of Wang and with Sherman's early findings on 2 preschool children. It appears, therefore, that this amount is sufficient provided the stores are saturated, and the diet is otherwise adequate. In view of the uncertainty of these points always being assured, it seemed desirable to allow a margin of safety, and the allowance was set at 1 Gm.

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		Calories	Protein (grams)	Calcium (grams)	Iron	Vitamin A† (J. U.)	Thiamine (B <sub>1</sub> ) (mg **)	Ribo- flavin (mg.)	Nicotinic acid	Ascorbic acid	Vitamin D	
Man (70 K	Man (70 Kg)				, .,,	(	\h	(105.)	(mg)	(mg **)	(I U)	
Moderately ac- tive Very active Sedentary		3,000 4,500 2,500	70	0 8	12	5,000	1 8 2 3 1 5	2 7 3 3 2 2	18 23 15	75	۲	
Woman (5	66, Kg.)						1 0	4 4	19			
Moderately ac- tive Very active Sedentary		2,500 3,000 2,100	60	0 8	12	5,000	1 5 1 8 1 2	2 2 2 7 1 8	15 18 12	70	٢	
Pregnancy (lat-							1 2	1 0	12			
ter half) Lactation		$\frac{2,500}{3,000}$	85 100	$\begin{smallmatrix}1&5\\2&0\end{smallmatrix}$	15	6,000	$\begin{smallmatrix}1&8\\2&3\end{smallmatrix}$	$\begin{smallmatrix}2&5\\3&0\end{smallmatrix}$	18	100	400-800	
Children up to 12		3,000	100	2 0	15	8,000	23	30	23	150	400-800	
years.	p 10 12											
Under 1 year‡		100/Kg	3-4/Kg	1 0	G	1,500	0 4	0.6	4	30	400-800	
1-3 years § 4-6 years		1,200 1,600	40 50	1 0 1 0	7	2,000	0 6	0.9	6 8	35	5	
7-9 years		2,000	60	1 0	8 10	2,500 3,500	0 8 1 0	1 2	.8	50		
10-12 years		2,500	70	iŏ	12	4,500	1 2	1 5 1 8	$\frac{10}{12}$	60 75		
Children o	vei 12					•		- 0		,,,		
years Girls,	13-15											
years		2,800	80	1 3	15	5,000	1.4	2 0	14	80	1	
	16-20	0.400									*	
years Boys,	13-15	2,400	75	10	15	5,000	1 2	18	12	80		
years		3,200	85	1 4	15	5,000	1 6	2 4	16	90	9	
years	16-20	3,800	100	1 4		•					•	
years		0,000	100	14	15	6,000	20	30	20	100		

\* Tentative goal toward which to aim in planning practical dietaries, can be met by a good diet of natural foods. Such a diet will also provide other minerals and vitamins, the requirements for which are less well known

\*\* 1 mg, t

equals 20 I U

† Require

greater if provided chiefly as the pro-vitamin carotene
he amounts given aid for approximately 6–8 months. The amounts
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of protein and

§ Allowances are based on needs for the middle year in each group (as 2, 5, 8, etc.), and for moderate activity.

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This can be provided by a pint and a half of milk plus the rest of the diet. Beyond the preschool period the data on which to base requirements are very meager, and the allowances proposed are largely derived from the calculations of Leitch, and from balanced studies of Wang for adolescent girls, and Sherman's one 12-year-old These indicate that the calcium needs increase through the growth period to well above the 1 Gm. level and then decline to that of the adult. With these three points tolerably well indicated by experimental evidence—the preschool child, the adolescent girl, and the adultthe values for other ages were interpolated to correspond to the curve of normal growth. It is evident that the calcium needs of children is still a fertile field for research.

Phosphorus.—No special allowances were formulated for phosphorus, as there are few data on which to base them. It is safe to say that the phosphorus allowances should be at least equal to and probably somewhat greater than those for calcium. In general, moreover, it may be assumed that if the calcium and protein needs are met, the phosphorus requirement will also be covered, because the foods richest in these are also the best sources of phosphorus.

Iron.—The iron allowance for adults was set at the 12-mg. standard arrived at by Sherman<sup>2</sup> on the basis of balance experiments. The mean intake required for equilibrium in his subjects was 8 mg., and this was increased by 50 per cent to provide a margin of safety. Recent work by McCance and Widdowson, 15 Hahn, 16 and others indicates that the actual iron requirement, especially of adult males, is much lower than this. According to their evidence, iron is absorbed only in response to a need, as in growth or after blood loss, and there is practically no re-excretion of iron into the intestinal tract. That is, what iron the body gets, it keeps to use over and over again. If this is true, then iron will be needed and absorbed during the period of growth, and in women during the period of reproductive life. Once fully grown, the male would have no further need for iron, and the same would be true of women after the menopause. If this theory is accepted, then the adult man's requirement would be zero, or only a few milligrams, and that for the woman only enough to replace menstrual losses. Actually Leverton 17 showed that adult women could maintain balance on about 7 mg. of iron per day. In a later study,18 however, she found that a higher level was needed unless the diet was well fortified with all other dietary essentials. It is seen then that the allowances set are not in accord with the most recent evidence, some of which has been published since they were formulated. After due consideration

by the Board and other contributors, it was decided that, since the theory was relatively new and not all workers were as yet convinced of its practical applicability, and since the 12-mg. standard in use was one that could be easily obtained in otherwise good diets, it would be well to hold to this level until further definite proof of actual needs is forthcoming. The allowance for women was set at the same value as for men. In view of their smaller average size this provides for their relatively greater needs due to losses in menstruation.

The demands of pregnancy are estimated by Sherman to require an increase of about 3 mg. over the normal requirement. This amount was therefore added to the 12 mg, making an allowance of 15 mg. Moreover, McCance and Widdowson found good hemoglobil levels in pregnant women on this intake. Al though there is no evidence that the iron need are increased in lactation—since milk is very low in this mineral—it seemed wise to err of the side of generosity and keep the same allowance during lactation as for pregnancy.

Studies of iron requirement of children have been reported only for infancy and the preschool vears. Both Jeans and Stearns, 20 and Oldham and Schultz<sup>22</sup> showed that in infants 0.5 mg. per kilogram is near the minimum needed to maintain a positive balance and good hemoglobin level. From a critical appraisal of the results of Rose,21 Leichsenring and Flor,23 Ascham,24 Daniels,25 and Porter26 on preschool children it seemed that the need at this level could be met by 0.30 to 0.40 mg. per Kg. Using these values together with the average weights for these years, and allowing some margin of safety, the values for preschool years were obtained. For the child of early school age (7 to 11 years), the allowances are supported by the work of Johnston,27 who found that children of these ages could maintain normal hemoglobin levels on 0.35 mg. per Kg., or a daily intake of 9 to 10 mg. of iron, and that larger amounts gave no improvement. No data are available for the requirements of adolescence. The allowances were set empirically on the assumption that the needs would be actually greater than those of the adult during these years and that increases of the order used would probably be justified.

It is clear from the foregoing that the question of iron requirement is one that will receive special attention in the forthcoming revision. In the meantime, the fact that these allowances may be higher than necessary need give no concern since they will be readily attained in diets providing ample calories and other dietary constituents.

Vitamin A .- There is greater divergence in

the judgments of authorities as to the amount of vitamin A required than for any other dietary essential. Estimates for the same age may range all the way from 1,000 to 10,000 I. U. This situation is explained by these facts: (1) that there is not as yet any generally accepted method for determining the requirement; (2) that the amount needed varies as to whether the source is the vitamin itself or its precursor carotene; and (3) that the capacity of the body for storage of this vitamin complicates the problem. Most of the estimations of requirements found in the literature are based on studies of the amount needed to maintain normal dark adaptation in the subjects studied.

The allowance of 5,000 I. U. for adults was based largely on the studies of Booher,<sup>25</sup> Blanchard,<sup>29</sup> and Guilbert,<sup>30</sup> and the critical evaluation of the literature by With. These studies indicated that the requirement is 25 to 55 I. U. per Kg., which amounts to 2,000 to 4,000 I. U. per day, and twice or more than these levels if the source is carotene. Since approximately two-thirds of the vitamin A value in the average diet is contributed by carotene, it was decided that 5,000 I. U. would represent a fair overall allowance. The allowances for pregnancy and lactation were arbitrarily raised above these by amounts estimated to take care of added needs during these periods.

Since few studies have been made on children which throw light on this problem, the allowances had to be set on the basis of the judgment of the referees, plus some calculations on the per kilogram need. The amounts recommended are well above those actually found in the studies made. Lewis and Haig31 found that infants had normal dark adaptation on 18 to 20 I. U. per Kg. or total intakes of 135 to 200 I. U., and workers with older children have found intakes much below the allowances adequate. It is generally agreed that vitamin A requirement is related to body weight rather than to energy expenditure. If we accept Booher's highest per kilogram estimate of the need, and compute the requirements for children on this basis, the values for boys would be 550 I. U. at one year; 1,000 at 4; 1,430 at 8; 2,200 at 12; and 3,300 at 16 years. If, however, we assume that the requirements are relatively higher on the basis of weight, as in the case of protein and the minerals, and multiply these values by appropriate factors—for example, those for protein, as 3, 2.5, 2.0, 1.5—values about equal to those in the table are obtained. There is, however, no valid justification for this procedure, save that it serves in a measure to rationalize the values which the referees empirically decided they were willing to accept. It seems probable to the writer that the allowances are well above the actual needs. It seemed desirable, however, to keep them so in view of the lack of universal acceptance of the dark adaptation test as an entirely satisfactory method for determining requirement. Moreover, vitamin A, well in excess of the amounts given as standards, is readily obtained in diets containing desirable amounts of milk, eggs, and green vegetables. The quart of milk alone, which is commonly taken by one year, provides the 1,500 I. U. allowance without counting that from other sources, and the addition of other foods in later years brings it well up to the standards set

Thiamine.—The thiamine allowances were influenced largely by the comprehensive experiment of Williams, Mason, Wilder, and Smith<sup>32</sup> on the effect of induced thiamine deficiency in human subjects, and the step-wise return to normal levels. When the subjects were put on depletion diets, the urinary excretions of thiamine fell very low, and subjective and objective symptoms developed. When they were given graded doses of thiamine, it was noted that the excretions increased, and the symptoms disappeared when the intake approached the 1-mg. level. However, when 2 mg. were given, the subjects continued to improve and were in an optional state of well-being. This study seemed to indicate that at least 1 mg. was needed and that 2 mg. were more than enough since a marked rise in urinary excretion occurred on this intake. It seemed reasonable, therefore, to allow a 25 per cent margin of safety above the 1 mg., making a daily allowance of 1.25 mg. amounted to 0.5 to 0.6 mg. per 1,000 calories for the subjects studied. This value is reasonably in accord with the findings of: (1) Melnick and Field<sup>33</sup> who reported that 1 mg. was sufficient to maintain saturation in the adults; (2) of Wang and Yudkin34 who found good excretions at 1.35-mg. intake: and (3) with the estimate of Hughes<sup>35</sup> from his work on pigs, that an average man of 70 Kg. would require about 1.5 mg. (or 0.5 mg. per 1,000 calories). From these studies it was concluded that about 0.5 mg. per 1,000 calories would be a reasonable allowance. and the values for adults at varying calorie needs were calculated on this basis.

The studies by Knott et al., 36 constituted the main evidence for the needs of children. From studies on normal infants she found that intakes of 240 to 420 micrograms were needed for normal excretion. From studies on preschool children 37 she concluded that the need at this age was approximately 900 micrograms. This is in good agreement with the findings of Rose and Robb<sup>55</sup> that the intakes of healthy

preschool children range from 564 to 910 micrograms. When the standards in these three studies are computed on basis of calories, they are found to be in line with the 0.5 mg. per 1,000 calories arrived at for adults. Since this value seemed applicable to these ages—adults, infants, and preschool children—it was assumed that they might also be suitable for other ages, and the values given in the table were so derived.

Riboflavin.—There were but two experiments that could be utilized in setting the riboflavin allowance—one by Sebrell et al.,39 the other by Parsons40 and coworkers. Both groups of workers concluded that the requirement of the adult is approximately 3 mg. The conclusion in each case was based on the level of intake at which depleted subjects could return to normal, as judged by the urinary excretion. In the former study, the disappearance of cheilosis was also used as a criterion. Both groups found that at 2 mg. intake the excretion did not equal that on the control diet, while at 5 mg. it rose sharply. They deduced, therefore, that the requirement lay at about the midpoint between the two, or 3 mg. In appraising the data, however, the committee believed that they might be interpreted to indicate that 2 mg. or a little more might be fully as satisfactory. Evidence to this effect was, moreover, submitted by a number of referees. Another consideration was the relationship which had been shown in experimental animals between the thiamine and the riboflavin requirement. According to Elvehjem this is about 2 to 3, and other laboratory workers agreed that it is about of this order. The allowances for thiamine having been arrived at, riboflavin values were therefore derived by increasing the thiamine ones by 50 per cent. Since the values so obtained for adults corresponded fairly well with those the committee arrived at from the experimental evidence, they were accepted as the best estimates that could be made in the light of the meager evidence available.

There have been many suggestions that the riboflavin figures are too high, and there is some experimental evidence to indicate that this is the case. This factor will therefore receive special attention in the next revision.

Nicotinic Acid.—There were no human experiments on which to base the requirement for nicotinic acid. This is true because (1) difficulties in conducting balance studies have been encountered; (2) because blood changes in nicotinic acid are not very significant; and (3) because only a few values for nicotinic acid in foods were then available. The tentative standards were therefore derived largely by calcula-

tion from the nicotinic acid requirement of dogs, as found by Elvehjem, and the values checked against diets known to be adequate for prevention of pellagra in human beings. When the allowances were thus calculated for the different ages, it was found that they were approximately ten times the thiamine allowances. This observation gave further support to the validity of the values, for since both thiamine and nicotinic acid, as well as riboflavin, play a part in the oxidation-reduction system of the body through which the energy of foods is released, they might be expected to bear a fairly constant relation to each other.

Ascorbic Acid.—There is better evidence for the requirements for ascorbic acid for different ages and conditions than for any of the other vitamins. This is true because methods for determining the needs are better developed and accepted than for the others and more studies have therefore been made. Among the studies which were used in deriving the allowances were those of Hauck et al.,41 Todhunter,42 Fincke,43 for adults; Roberts44 for children of 8 to 12 years; Hathaway<sup>45</sup> for preschool years; Bessey and King46 and others for infants. In these and other studies, both the blood level of ascorbic acid and the urinary excretion test have been used as evidences of adequate stores, and an attempt has been made to find the lowest level of intake that will keep the body in a normal state of saturation as judged by these criteria. The chief points of argument have been as to what constitutes normal blood level, and what urinary excretion response to a test dose indicates saturation.

There is debate also as to whether complete saturation is necessary for normal health.

From the published reports of these and other workers, compromise allowances were set up for the different ages and categories, then submitted to the referees for criticism, and then revised. Fortunately, it was also possible at the meeting of the Institute of Nutrition to get together all of the workers listed above for a discussion and modification of the allowances.

The ones given in the table are the final ones so derived. They are understood to represent levels well above the minimum needed to protect against scurvy but below the amount needed for complete saturation. They are, in short, good allowances to aim at in common practice. Moreover, they are not difficult to attain or exceed in good dietary practice.

It is seen from the foregoing review that the actual experimental evidence for human requirements for the various dietary essentials is far from adequate and especially so for vitamin A and the B vitamins. Moreover, even though the need may be fairly well established for a given age or condition, there is rarely a complete series of studies covering the growth period, and data for adolescence especially are lacking. It is clear then that the allowances had to be set up partly on the basis of the judgment of nutrition workers whose experience gave them some basis for deciding what values to interpolate for those that were lacking. That the allowances so derived are reasonably satisfactory is attested by their use during the past three years. already indicated, there are indications that some of the values may be unnecessarily high, especially those for riboflavin and vitamin A, and for most values for pregnancy and lactation, and the new evidence for these will be carefully considered in the contemplated revision. However, it is believed that as they now stand they are good "allowances," if used as goals to aim at in dietary practice rather than as absolute requirements.

It is obvious that continued research is needed on all aspects of this important problem.

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#### Discussion

Dr. Edward S. Rogers, Albany-There is much food for thought in the two papers by Dr. Roberts and Dr. Gortner and the large problems of investigation and practical application which they represent.

As Dr. Roberts has clearly shown, there are elements of empiricism still prevalent in our socalled dietary standards. While none of us, it seems to me, can seriously quarrel with the manner in which these standards have been tentatively set by the National Research Council, we must realize that at many points they are uncertain.

The methods of measurement and the interpretation of results as they relate to studies of balance with many of the vitamins lack the precision or understanding that are available-for example, in determining protein requirements on the basis balance, The National Research nitrogen Council and all investigators, of course, realize this and have carefully planned for it by the practice of adding a 25 to 50 per cent "margin of safety" to their calculations of need.

Such a procedure, however, in terms of a wartime food economy has interesting implications. This mark-up of food requirements, made in good faith at the conference table and in the laboratories of our scientific groups, can conceivably have an effect of amazing magnitude in terms of bushels or carloads or tons of food to be consumed.

On this scale, every percentage, every fraction of a percentage, that we raise our standards above their true (but as yet unknown) levels might act as an important force in the maldistribution of our already overtaxed food resources.

To err in the other direction, however, would be equally if not more serious in terms of our national and international food planning, national health, and the vigor with which we are able to prosecute the war.

Clearly, the position of the National Research Council is an unenviable one but none the less tremendously important. We who are at the functional level must give them all possible support, especially in the urgent problem of a more precise understanding of food requirements.

In our experiences with the problem of feeding the war worker, we feel that we are safely beyond the realm of the foregoing controversy—but on the wrong side! I mean that our estimates and studies of the dietary of our war workers in over fifty New York State war plants have convinced us that these dietaries are seriously below even the most conservative estimates of adequate standards.

I am among those who are convinced that the adequacy of the food intake in calories, in organic and mineral constituents, and vitamins bears a

direct and appreciable relationship to the worker's health and ability to produce.

We have proceeded along the lines of the national program and set as our goal the provision of one-third (or better, one-half) of the daily requirements for the worker at his on-the-job meal, where we know what he gets.

We are convinced, on the basis of dietary analysis and also of laboratory analysis of foods as consumed, that it is practically impossible to reach, to say nothing of exceeding, this objective in the majority of busy war plants, even when we have had the advantage of opportunities to use reinforced foods (using brewers' yeast especially).

Theoretically, this should not be so, but in practice, where reality must be faced, it is so. All the more reason, of course, for intensifying our efforts by education of worker and manager, by regulations as may be required, by study and improvement of methods, and by "reinforcement" when possible.

I should like, in concluding, to go back to the problem of precision in standards as it may relate to another important medical problem. I have

reference to the recently published studies of Foster and her associates\* on so-called "hypo-immunity" in relation to thiamine intake. In these studies (which have not, to my knowledge, been confirmed, but most certainly should be as rapidly as possible) it appeared that an excess of thiamine or a depletion of thiamine in the diet resulted in a sharp increase in the susceptibility to paralytic poliomyelitis of experimentally inoculated mice.

Presumably the mechanism of this occurrence at these two extremes is different, representing preponderant influences on host resistance on the one hand and virus virulence on the other.

With our growing positive approach to human nutrition, with our tendency to disturb, by aggressive action, the ratios and balances between the various nutritive elements consumed, it seems that there may also come serious responsibilities in in the understanding and discharge of which we shall need, more than ever, the precise knowledge of standards of which I have already spoken.

\* Foster, C., Jones, J. H., Henle, W., and Dorfman F.: Proc. Soc. Exper. Biol. & Med. 51: 215 (Nov.) 1942.

#### NEW YORK RED CROSS REPORTS ON YEAR'S WORK

The extensive war and home-front activities of the New York Chapter of the American Red Cross in the year ended June 30—reflected in the fact that more than 40,000 volunteers gave 5,000,000 hours of service—are summarized in the organization's eighty-page annual report made public in November.

Emphasizing that work for the armed forces was responsible for a tremendous increase in activities of the chapter's twenty-nine services, Maj. Gen. Robert C. Davis, executive director, said home service handled 121,393 cases as compared with 39,343 the preceding year. Home service assists in the problems of service men and their families.

Home service helps service men to obtain leaves, gives extended care to their families and handles inquiries concerning prisoners and men reported missing. To facilitate service, teletype machines were installed in the telegram department, which works twenty-four hours a day. Among the 371 volunteers in this service were doctors forming the psychiatric clinic.

Pride was manifest in that portion of the report dealing with the chapter's blood-donor service. It registered 364,861 volunteer donors and collected 257,303 pints of blood, winning a white star to add to its Army-Navy "E" flag for high achievement. The service, now at Fifth Avenue and East Thirty-seventh Street, was established in February, 1941, as the first blood-donor project to provide dry plasma for United States forces.

The financial report, submitted by Mrs. Mabel C. Langer, director of accounting, shows a total income of \$1,938,291.09, including a net share of \$1,880,624 from the 1943 war fund campaign. Expenses, including \$39,651 for administration of the blood-donor service, totaled \$1,235,070.27. This left a balance of \$703,220.

In his own section of the report General Davis stressed the new features of service added to the chapter's customary activities, which, he said, produced "an unprecedented record of service to the armed forces, to overseas war victims and to the community."

Innovations included a new volunteer service, the dietitian's aid corps, to assist in hospitals. The chapter also detailed Gray Ladies, motor corps and nurse's aids to assist at Halloran General Hospital, the Army Hospital on Staten Island. Many volunteers were assigned to the war prisoners' foodpackaging center in Manhattan, where the output rose to 13,000 packages a day by June.

Recruiting of nurses for the armed forces also was intensified during the year, the report shows. Between July 1, 1942, and June 30, 1943, the chapter recruited 1,625 nurses for the Army and Navy Nurse Corps.

Production service made 11,000,000 surgical dressings for the forces, filled 168,000 comfort kits for American troops going overseas and 60,000 convalescent kits for sick and wounded men being returned to this country, and made 43,500 garments for overseas war sufferers.

The canteen corps and motor corps were credited with rendering many services to the forces, for which reading matter was provided by the library and magazine service. Christmas service sent gifts to 5,000 hospitalized veterans and nurses from New York and Bronx counties.

Among the other services, first aid service issued 70,000 certificates and organized 100 first-nid detachments, while home nursing service taught 11,000 women to care for the ill. The disaster relief service, which stands ready to aid victims of enemy action, gave assistance to persons left homeless by a large apartment house fire.

#### PROBLEMS IN EARLY TREATMENT OF POLIOMYELITIS

JESSIE WRIGHT, M.D., Pittsburgh, Pennsylvania

IN THE past two years, as a result of publicity 1 through the Bulletin of the Allegheny County Medical Society and the Pennsylvania State Medical Journal, patients have been referred earlier for confirmation of diagnosis of poliomyelitis and immediate treatment, in some instances before paralysis had appeared. As a result, physical measures were started earlier than was possible when we did not see patients until after paralysis had been present for several days. When seen in the prodromal stage, signs of irritation of anterior horn cells were reflected clinically, at first by fibrillation of groups of fibers in case of mild insult, or by spasm of whole groups of muscles when inflammation in the cord was more extensive. At this stage, spasm of the posterior muscles of the body did not predominate, but rather agonists and antagonists were affected in much the same way. Three such patients were admitted to hospital with histories of gastrointestinal disturbances, sore throats, moderate fever, and soreness of muscles. No decrease in reflexes or individual muscle impairment was found, other than a certain reluctance to move the involved parts. Within twenty-four hours examination showed nuchal rigidity and tenderness along the spine and certain muscles of involved extremities. Spinal fluid findings were suggestive of poliomyelitis, and spasm of certain groups became marked, with inhibition of other groups, which, in many instances, were antagonists. Soon after the onset of poliomyelitis one cannot be sure which groups are inhibited by spasm of antagonists and which ones have true paralysis. These facts make no difference in procedures of treatment, since the spasm must be completely relieved and tendencies to contractures must be prevented or overcome before the inhibited or weakened groups can be analyzed with accuracy for tentative classification.

It has been interesting to watch the groups of patients from the last two seasonal outbreaks through the different stages of early convalescence. We noticed that certain patients seen during the prodromal stage of the disease had fibrillation and spasm of muscles, some of which had an early return of function, others became inhibited and gradually recovered, while still others became inhibited, continued to give no response, and were characterized finally by typical flaccid weakness. This suggests that the initial reactions to the irritation of the virus and

its toxins were fibrillation and spasm, and that further activity of the virus led to destruction of the motor cell, followed by disintegration of its axis cylinder and paralysis of one hundred or more muscle fibers associated with it. Other muscles that had been characterized by fibrillation and spasm returned to normal after a few days of fomentations, suggesting that their neuromuscular units had been irritated but not severely damaged. In such instances fomentations were started immediately after diagnosis. It seems logical to suppose that if the congestion in the cord and associated structures and the stasis in muscles which are in spasm are relieved by improvement of circulation through favorable postural position and early physical therapy, regression of inflammation is encouraged so that one may hope to limit the number of cells permanently damaged by the virus and save surrounding cells from impairment or destruction due to altered nutrition and metabolism.

Neurologic examination of many acute inflammations, irritations, or insults to the central nervous system and its coverings shows varying degrees of spasm in the posterior neck, in the back, and in the hamstring muscles. These signs have been recognized for many years. The idea that spasm was present in other muscles of involved parts in poliomyelitis was original with Sister Elizabeth Kenny. Since it is impossible to make direct observations of cords in living human beings with acute poliomyelitis, one must depend on results of animal experimentation, clinical observation, and results of treatment to explain physical signs. After the keeping of a careful record of signs and changes during onset, during the acute stage of the disease, and during convalescence, certain postulations may be made and offered for confirmation or question in future research. Early spasm may be caused partly by initial irritation from infection and inflammation, partly by reflex splinting to avoid painful movement, and partly by muscular tension generated by the patient's reaction to pain.

Most reports in the past few years are in favor of beginning treatment immediately after diagnosis. Sister Kenny's method is being followed more or less, in many medical centers, for treating acute and early convalescent poliomyelitis. Fomentations, proprioceptive stimulation, and synchronous movement taking advantage of reciprocal action have been described too often in the past months to need repetition here.

A question has arisen as to whether other

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forms of heat would not be as effective as fomentations in the acute stage for sedation, decongestion, and relaxation of spasm. Dry heat stimulates sensory nerve endings, while moist heat decreases sensory afferent impressions reaching the central nervous system, and gradually cools, giving a vasomotor tonic effect. In our experience moist heat gives quicker relief from pain and spasm than dry heat.

As spasm and tenderness disappear, physiologic movement followed by rhythmic contraction and relaxation of muscles gives further relief of congestion locally and systemically. As pain and spasm diminish, the muscles and the patient relax so that metabolic products which have been locked in rigid muscles are mobilized by an improved cycle of circulatory interchange. Thus we find reasonable explanations for the changes brought about by these physical measures.

I am not in accord with the idea that individual muscular re-education should be discarded. Perhaps use of only one phase of two opposing movements has been overdone in past years. But we have had some experiences with reciprocal movement which make us vary the technic when necessary. In most instances, use of both phases of reciprocal action is satisfactory, even when one muscle is stronger than its inhibited antagonist. However, certain exceptions have come to our attention. In the group of patients from 1941, one child, who had made almost a complete recovery, was ready to go home at the end of six months. The quadriceps was the only muscle which had not given any indication of power. After several lessons, the mother did not grasp the idea of rhythmic movement of the knee by the Kenny method. I asked the instructor to turn the child on her side and try knee extension according to the Lovett method. The quadriceps gave a definite contraction, strong enough to completely extend the knee, with guidance, in the horizontal plane. The patient continued the exercise in the side-lying position until several weeks later a fair grade had been reached. Then the instructor tested her in the back-lying position, encouraging reciprocal action, and the response was satisfactory in both phases of knee movement. Similar variations have been used in other patients when indicated.

A grant from the National Foundation for Infantile Paralysis has made it possible to add special instruction in our regular physical therapy course, and also to take small groups of graduate students, with adequate background, for individual instruction in early treatment of poliomyelitis. I have been interested in the preconceived ideas that these students have when they come. In the past six months the special students were asked to express their idea of the

effect of the Kenny method when treatment was started at onset. Most of them replied that all muscles could be returned to normal and no deformities would occur. Although recent papers by a number of physicians have stated clearly that early physical treatment may limit the residual weakness to the units permanently damaged by the virus, but not prevent paralysis, there is still a widespread misconception about what can be accomplished. It may be possible to prevent deformities while the patient is under close supervision during the early stages of the disease. But if residual paralysis persists, contractures and distortions may occur. Four out of 30 patients in our 1941 group required modified brace support on legs to limit tendencies to deformity. One patient had to have the calves stretched gently in plaster casts. One had division of an iliotibial band to improve function. So far this year (1942), in a group of 15 patients, 2 have needed help in the form of light casts, which are worn at night and removed in the daytime. Certainly, when treatment is started immedi-

Certainly, when treatment is started immediately after diagnosis and continued under close supervision, the affected parts are of better tone, show less atrophy, have better neuromuscular and joint function, and are used more naturally than in patients who, during previous years, were immobilized or greatly restricted during acute and convalescent stages. A review of certain case histories from the last seasonal outbreak of poliomyelitis may be interesting and instructive. Variations in individual response to treatment will be described.

Case Reports

Case 1.—H. S. was a boy of 6 years who came to Children's Hospital critically ill. The throat and nasopharynx were filled with mucus, respiration was abdominal and irregular. The boy could not swallow, was unconscious, with his eyes partly glazed over with a dried web, and the trunk in a marked degree of opisthotonos. His arms and legs were in a flexed position and could not be straightened even with gentle, steady movement. The boy had received such a severe insult to his nervous system that analysis of the extremities was not attempted. The mucus was cleared from his nasopharynx with an electric aspirator and fomentations were started immediately on his neck and trunk and changed every half hour during all twenty-four hours. They were tried on his legs, but he became restless and the fomentations were removed from the legs. When his throat was aspirated, the sound seemed to irritate him and we noticed that he moved his arms and legs, although he did not straighten them completely. The gag reflex was absent. In a few hours the neck and back muscles relaxed enough that the body and head could be flat on the bed. The binder, which held the trunk fomentation in place, was kept tight over the abdomen and loose over the chest. In this way it was possible to encourage thoracic breathing. Respiration remained irregular for twenty-four hours. Nourishment was given by vein during the first three days, at the end of which time the child aroused enough to notice what went on in his room. Fomentations were added to the legs and changed every two hours of the daytime twelve hours. Neck and trunk fomentations were continued day and night and changed every two hours. Less mucus was accumulating in the throat and it was noticed that the gag reflex had returned and the patient attempted to swallow. Feeding by teaspoon was tried carefully, and by the end of the fourth day the boy could swallow orange juice and other liquids given in this fashion.

By the end of the first week breathing was regular but still shallow. The boy could take a soft diet, and analysis of the extremities could be made with a fair degree of accuracy. Some spasm was still present in the posterior neck, back, hamstrings, calves, the right pectorals, right elbow flexors, wrist extensors, and upper trapezius. No sensory impairment was found. The chief muscles inhibited were the anterior neck muscles, the abdominals, quadriceps, dorsal flexors of the feet, the right deltoid, the right triceps, and wrist flexors. The boy now tolerated the fomentations on the legs and so the right arm was included, besides the neck, back, chest, and abdomen, which had been packed day and night since his admission to the hospital. By the end of two weeks only slight spasm of the groups mentioned remained, and weakness became evident in the right deltoid, elbow flexors, wrist flexors, and abdominals. Although individual muscle weakness

was noticed, no group was completely paralyzed. Physiologic movements were used on affected extremities, and the patient was instructed in correct breathing, relaxing the neck, expanding the chest, and retracting the abdominal muscles. The middle of the third week of quarantine I went in to see him one morning and found him trying to climb over the side of the bed. At this stage his legs were essentially normal, but there was still individual weakness of the right deltoid and elbow flexors. The boy breathed and swallowed normally, he was able to take a general diet, and his bladder and bowel function were normal. On account of the severe initial illness his family was instructed in allowing only gradual increase in his activity, arranging frequent short periods of sitting in good posture during the first week at home, which was the fourth week of the disease, permitting momentary standing the fifth week, taking his pulse before and after each activity. Instructions were given in maintaining normal range of motion in the spine, legs, and right elbow, in addition to special exercises for the right deltoid, elbow flexors, and for correct breathing. I saw the boy at my office six weeks after the onset of his illness, and be was able to walk and use all parts of the body normally, except the right arm, the deltoid of which was fair, and the elbow flexors almost good. His family restrained him with difficulty from running and being overactive. He has been seen since then, and improvement of the right arm continues.

I call attention to the fact that although the fomentations were obviously of great importance in relief of initial symptoms, the boy would not have lived if he had not had excellent nursing care to keep the throat clear from mucus, to prevent hypostatic congestion, and to see that proper nourishment was given and wastes eliminated. I believe that seeing that the patient has a generous fluid intake, proper nourishment, normal bowel evacuation, and variation of position to prevent hypostatic congestion, are essential parts of effective early treatment.

Case 2.—Another patient, F. G., a 3-year-old girl, seen while paralysis was still spreading, has provided clinical instruction during the early course of the disease. Her family doctor was called one morning in September because she could not stand on her left leg. By the time he reached the patient's home she could stand, walk, and run as usual. She had no fever, sore throat, headache, gastrointestinal disturbance, muscular pain, or soreness; there was no change in reflexes, and no tenderness was found. He reassured the family and asked them to call him if any further unusual manifestations occurred. That evening they called to tell the physician that the other leg had given out and the child could not stand at all. Again he examined her very carefully and found some diminution of patellar and Achilles reflexes, but no muscular tenderness or elevation of temperature. She was put to bed. The next day the temperature rose to 100° and the child complained of discomfort in the back and lower legs The physician found leg reflexes further diminished, abdominal distention, tenderness and spasm in the back and hamstring muscles without sensory impairment, and weakness of the left leg. The patient was sent to Municipal Hospital with a clinical diagnosis of poliomyelitis. Spinal fluid findings confirmed the clinical impression. Fomentations were applied to the neck, back, and legs, and changed every half hour. By the evening of the second day of the illness some weakness was present in the left arm, and nuchal rigidity became apparent. Fomentations were added to these areas and changed every two hours. The next morning the other arm was affected, nuchal rigidity was more marked, breathing was shallow but regular, and we wondered if the illness was going to be of Landry's type. However paralysis stopped at this point and no further areas were involved. Fomentations, even when used day and night, did not give as quick relief from pain as usually occurs. The child had third degree or marked spasm in the neck, back, left gluteus maximus, left hamstrings, right quadriceps, and both calves, with inhibition of anterior neck muscles, left quadriceps, and dorsal flexors of both feet. In a few days, as the tenderness subsided and spasm decreased, range of motion in all joints became freer. In the arms there was marked spasm of the right pectorals and right upper trapezius, and moderate spasm of the elbow flexors. The left arm seemed to be generally inhibited. Fomentations were stopped at night because of excessive sweating

attended by rapid pulse and moderate prostration. At the end of the first week the child appeared toxic and acutely ill. Probably part of the sweating was due to toxemia. In spite of limitation of the packs sudamina developed, and it was necessary to apply the packs only every other two hours, using cephalic cold and allowing the body to dry between applications. In spite of this, excessive perspiration continued, with resultant tendency to maceration of the skin so that the fomentations were discontinued entirely except for the ones on the neck and trunk. Fortunately, by this time the most severe tenderness had disappeared, muscle spasm had diminished, and the child was more comfortable.

We found on investigation that the child had the same type of constitution and poor vasomotor tone as the mother and had a tendency to perspire excessively, even in cold weather. We believed that this accounted, to a large degree, for the reaction that the child had to the fomentations. The skin had cleared by the end of the third week in quarantine, and when she was released from isolation moderately hot fomentations were tried for thirty minutes out of each two hours, and were followed by cold sponging of the body to improve vasomotor The skin was kept dry for one hour out of two. After two weeks of alternate hot and cold in this manner, she was able to tolerate fomentations given in the usual way for twelve hours daily, changed every two hours.

The child had poor eating habits, and probably before this illness her tissue tone had suffered as a On a well-balanced diet, rich in vitamins, all of her responses and her behavior began to improve so that she could tolerate fomentations followed by physiologic movements in the same way as the average infantile paralysis patient. When she was in Municipal Hospital, a neurologist, who was a friend of the family, felt that she had a most severe paralysis of all body parts. By the end of November, three months after onset, she had reached the point where she had normal range of motion in all joints, normal power in the arms and trunk, good return in the hips and knees, and the ankle and foot muscles all showed some response and were improving. Now she is walking without assistance and without a limp, with the help of high shoes.

I review the occurrences in the course of this patient's illness to show that fomentations can and must be varied, and to bring out the fact that reasons may be found for undesirable reactions to fomentations. In this case excessive sweating may have been caused by severe toxemia, poor vasomotor system, and improper nourishment, upon which foundation the moist heat exaggerated an inherent tendency to sweat. Intravenous dextrose in physiologic salt solution has been helpful in limiting excessive perspiration in some of these patients.

Although the case reports I have given describe unusual situations, we did see other patients who had the usual type of onset and course of the disease. However, in 1942 there were fewer new cases than usual in our section of the country and many of them had atypical onsets.

We know from gross and microscopic findings in poliomyelitis that the inflammatory reaction from activity of the virus results in congestion. swelling, engorgement of vessels, and effusion of fluid and blood, so that the cord, membranes, and structures in the intervertebral foramina are enlarged and crowded in severe attacks of the disease. Besides invasion and destruction of anterior horn lower motor cells by the virus and its toxins, obviously the prolongation of a state of congestion with stasis of circulation and ischemia of surrounding cells would lead to altered metabolism of other neurons, possibly with permanent insult in addition to the primary effect of virus on the cells in the center of the inflammatory zone.

Dr. Temple Fay has remarked about lack of appreciation of the degree of intraspinal venous and perineural congestion accompanying many infections, irritations, and injuries affecting the structures within the spinal canal. He has spoken of opening the canal for various purposes and seeing degrees of congestion that could cause damage in addition to primary disease or other insult.

Hansson, 1 Schwartz, 2 and Weiss 3 have made careful studies of action currents in poliomyelitic muscle.8 Such contributions will clarify the interpretation of hyper- and hypoactive responses and furnish ground for further explanation of effect of early treatment. Unquestionably Sister Kenny<sup>4</sup> has made an invaluable contribution to the treatment of acute poliomyelitis and has modified the conception of the peripheral manifestations of the disease. But we must not lose sight of the importance of treating the patient as a whole, as well as considering all problems of the disease. Nutrition, psychotherapy, physiologic positions of advantage in bed and later when upright, as well as scientific records of signs and progress are all important. Available and timehonored forms of treatment may still prove uscful in meeting certain needs in various stages of the disease. We shall continue to use to advantage the Silver\*method of preventing stasis of circulation by special postural measures in bed, the Lovett†-Merrills method of muscle testing, the Kendalle percentage grading, the Lowman underwater re-education, and light, efficient supports when indicated. No method of treatment. however efficient, will prevent the disease and its aftermath.

We look forward to the day when poliomyelitis will be controlled largely at its source, and effective immunity will be within reach. In the meantime, recent advances in early treatment will

<sup>\*</sup> David Silver, M.D., professor emeritus of orthopaedic surgery, University of Pittsburgh School of Medicine, † Robert Lovett, M.D., late professor emeritus of orthopaedic surgery, Harvard University School of Medicine.



help to limit paralysis and favor earlier return of function.

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#### Discussion

Dr. K. G. Hansson, New York City-It is of great interest to me to listen to a paper like Dr. Wright's. We have had a great deal of confusion during the last two years about poliomyelitis, and it is only of late that we can see the orderly outline of a new aftertreatment. Two years ago I wrote a paper dividing the after-treatment of polio into three parts-the acute stage, the convalescent stage, and the chronic stage. I see no reason, two years afterward, to change what I said then. It is a pleasure to me to see other doctors coming to the same conclusion.

I agree with Dr. Wright that Sister Kenny has given us a valuable contribution in the acute stage, the early recognition of spasm, and the intensive treatment of this spasm by means of hot fomentations. In addition to what Dr. Wright brings out about moist heat. I would emphasize the fact that the maximum heat is at the beginning and the heat gradually diminishes, thereby allowing a partial constriction of the capillaries. It also follows that this form of heat application is safer in every way. The proprioceptive stimulation and the synchronous movements are valuable additions to our muscle re-education. Dr. Wright did not speak of muscle testing. I use this as the only rational estimation of the progress of the patient. I can't believe that a muscle test once a month interferes with the muscles in a child.

I believe with Dr. Wright that individual muscle re-education should not be discarded in the convalescent stage. Cases of residual paralysis will undoubtedly follow the same pathologic-physiologic laws which they always have followed.

There has been a dangerous tendency in the last two years to turn over the care of polio patients to pediatricians and epidemiologists who have never had previous experience with polio treatment. Dr. Wright brings out the importance of this point in discussing two cases. I am certain she could have added many more. I should like to add two of my own experience:

Case 1.-A boy, 12 years old, spent four months in a respirator in spite of recent reports that the iron lung was unnecessary. Every time he was taken out of the respirator, he stopped breathing.

We had to use oxygen therapy with his packs and muscle re-education.

Case 2 .- I have heard of a polio patient with fever being packed until his temperature rose to 108 F. and the patient passed out. We must use common sense even if we try out new methods.

In the chronic stage, our concept of polio has not changed; braces and other supports as well as orthopaedic operations are just as necessary as before.

I would ask Dr. Wright to describe the Silver

method in more detail. I would also ask Dr. Wright to give us some idea

of the end result of her polio cases in Pittsburgh. I want to thank Dr. Wright for a very frank and rational paper on her experience with poliomyelitis.

Dr. Francis J. Gustina, Buffalo-Dr. Wright has properly brought out many of the well-known As she noted facts in regard to this infection. one must treat entirely on a symptomatic basis. It is therefore necessary to treat symptoms and the patient, not the disease. The earlier this begins the more comfortable the patient will be, and the more likely will better results be obtained. cannot look into the spinal cord and see how marked has been the process of inflammation, nor can we hazard a prediction on the basis of physical findings as to whether paralysis will ultimately result. Certainly, as she suggests, it does seem probable that regression of cord inflammation may be encouraged by measures designed to relieve the symptoms and signs of muscle spasm.

Her explanation of the possible reasons for the success of early physical measures is in keeping with observed changes, and makes for a better understanding of the need for early treatment. Certainly each case must be individualized. Any standard method must be varied to meet different conditions. Measures which have been found to be valuable in former times should not be hastily discarded for newer innovations.

Unfortunately, in the minds of many the introduction of the Kenny treatment has seemed to envision a future of infantile paralysis without any residual impairment of muscle function.

This concept must be eradicated. A number of cases will continue to show residual paralysis, and still require orthopaedic measures for their proper management. Early institution of physical procedures will certainly give a better outlook for freedom from deformity, but constant follow-up will still be needed to avoid contractures and distortions.

The case illustrations bring out clearly the need for good nursing care and medical judgment in special instances. Surely we cannot neglect the patient and concentrate only on his illness. Little things sometimes give big results.

In the present state of our knowledge concerning this disease, it would seem the better plan to give all patients the early benefits of physical measures, even though a number of them would probably not require them. Until we know how to find out what is actually happening in the spinal cord, and find some specific treatment to overcome these effects, our reliance must continue to be on symptomatic treatment, according to the plan which has so far given the best end results.

It has been a pleasure to discuss Dr. Wright's paper, and I want to congratulate her on the fair attitude she has taken in regard to the role of physical therapy in treating this disease. Her open mind on the various problems involved and her insistence on a rational appraisal of all factors and measures should do much to help clear away many of the misconceptions regarding this disease and its most effective treatment.

Dr. Wright-In regard to Dr. Hansson's question about muscle testing, I may say that we find distinct advantage in keeping records. Muscle spasm and inhibition, in the acute stage, are analyzed as much as possible from inspection and palpation without disturbing the patient or moving involved parts. After the acute stage we keep the same type of muscle charts we have used through the years. I do not believe anyone can remember from month to month or from year to year what state of the muscles existed early in the disease. If we do not keep accurate records, we may be misled in final conclusions about how much recovery has taken place.

Twenty years ago Dr. David Silver called attention to the importance of the prone position in preventing stasis of the circulation in the posterior trunk, including the region of the spinal cord. In those days it was not unusual to see patients who had been lying on the back for days or weeks in splints, with almost no turning except at the time of morning care. Parts were so tender and patients experienced so much pain that all those in attendance were reluctant to turn them, or feared change of position lest inflammation would be spread and the acute stage prolonged. Dr. Silver advocated

turning the patient as one unit, not allowing segmental movement, at reasonable intervals, usually every two hours, supporting all parts of the body in physiologic positions of advantage. We still use this postural program with certain variations to suit the need of each patient.

Dr. Hansson asked about results of treatment when physical therapy was started at the onset of the disease. Pain is relieved more quickly; spasm, tenderness, and limitation of motion diminish more rapidly than when treatment is deferred; and the tone of skin, subcutaneous tissue, and muscle is better. The patient's psychologic reaction is favorable under minimum restriction, a feeling of comfort and well-being, and relatively rapid transition in treatment and condition of affected parts. After the acute stage, the problems are much the same as they have been always, and are met by wellknown measures. Unless no neuromuscular units have been permanently damaged, gradual resumption of daily routine brings the old problems of balance between rest and activity, tendency to atrophy of affected muscles, and overdevelopment of unaffected parts. Some patients, who manage without bracing, under close supervision, eventually need support to help prevent deformity or to improve function. Contractures and deformities still develop and need orthopaedic care.

Dr. Gustina has emphasized quite correctly the fact that physical treatment is only part of early treatment of poliomyelitis. The care given by the pediatrician, the resident, and nursing staffs fortifies the patient and makes possible treatment of the motor impairment.

I appreciate the discussion of my paper by Dr. Hansson and Dr. Gustina and the comments made by Dr. Syracuse.

#### 163.400 CANCER VICTIMS IN 1942

Cancer took 163,400 lives in the United States last year, 3,474 more than in 1941, ranking second only to heart diseases as the principal cause of death. The Census Bureau reported in November that the rate of deaths from all causes, however, fell to 10.4 per 1,000 persons, lowest on record, reflecting sharp reductions in the rates for pneumonia and influenza and for automobile accidents.

The bureau released the following statistical report on 1942 cancer deaths by age groups and sex:

Female Male Age Total 35 214 323 763 4,935 30,959  $\frac{42}{182}$ Under 1 year 77 396 1-4 years 5-14 years 15-24 years 25-55 years 56-64 years 272 549 10,015 595 1.252 36,604 37,739 65 years and over Unknown 708 56 77,933 85.467 163,400 Total

#### A.C.F. TO PUBLISH YEAR BOOK SUPPLEMENT

The subject of publication of a complete Year Book of the American College of Surgeons in January of 1944 was discussed at a meeting of the administrative board with the chairman of the board of regents. It was the consensus, because of the many Fellows of the College who are in military service and into whose hands it would not be possible to place the directory correction form, that publication of a complete Year Book would be undesirable at this time, since facts pertaining to many of the Fellows have changed materially since the Year Book was published in January of 1942.

The administrative board recommended to the board of regents that in lieu of a complete Year Book at this time there be published a Supplement for 1948, this supplement to contain geographical and alphabetical listing of Initiates, 1943, and an over-all alphabetical list of all present Fellows of the College admitted through 1943. . . . —Bulletin, American College of Surgeons

# A SECOND REPORT ON ROCKY MOUNTAIN SPOTTED FEVER IN NEW YORK STATE EXCLUSIVE OF NEW YORK CITY\*

E. R. Maillard, M.D., and E. L. Hazen, Ph.D., New York City

THE prevalence of Rocky Mountain spotted fever in one county on Long Island was reported in 1935¹ and the results of agglutination tests with Proteus X 19 and blood serums from ten patients with clinical and epidemiologic evidence of spotted fever were also presented. Since then, serologic studies² have been made on blood serums from twenty-six additional residents of Long Island believed to have Rocky Mountain spotted fever.

The largest number of cases studied in any year was eight, in 1939. According to Parker,<sup>3</sup> the incidence of spotted fever is influenced markedly by meteorologic factors that affect the tick population. Gordon<sup>4</sup> has also pointed out that the extent of the tick population, the percentage of infected ticks, and the human population, or the extent of migration into the area, are influencing factors.

In so far as can be determined from the records of the State Department of Health, Long Island is the only known focus of Rocky Mountain spotted fever in the State. Other foci may be disclosed as a result of increased migration into thinly populated rural areas, as in the Adirondack Mountains, where extensive mining operations and related projects are now in progress. The need for recognition of the disease and knowledge of methods of diagnosis is obvious.

Some of the criteria considered important by experienced investigators<sup>3,5,6,7,8</sup> for the differentiation of spotted fever from endemic typhus fever, the disease with which spotted fever is most commonly confused, will be mentioned here.

In spotted fever the rash becomes more generalized, usually appearing first on the extremities and extending to the palms and soles, which in endemic typhus are not involved. A definite history of tick bite is of distinct value in differentiation, since spotted fever, not endemic typhus, is transmitted by the tick. Biopsy of skin lesions may often serve to establish a differential diagnosis, since in typhus the rickettsiae are found in the endothelial cells lining the blood vessels while in spotted fever the microorganisms are found not only in the endothelial cells but in the smooth muscle cells of the arteri-

oles. Of the laboratory tests used, the Weil-Felix test with the O strains of Proteus X is the most practical and is of distinct aid in diagnosis. The serums from spotted fever cases may agglutinate OX 19, OX 2, and OX Kingsbury, while Spencer and Maxcy<sup>9</sup> and Davis<sup>10</sup> report that serums from endemic typhus fever in this country agglutinate only OX 19. Our findings have been in accord with those of Parker,<sup>6</sup> who observed that in the majority of cases of spotted fever the Proteus OX 19 strain is agglutinated in much higher titer than OX 2, but that in occasional cases the OX 2 titer is definitely higher.

This report presents a serologic study of blood specimens from twenty-six patients believed to have had Rocky Mountain spotted fever, with a summary of the clinical and epidemiologic findings. The results of the histologic examination of specimens of skin, heart, spleen, and liver removed at autopsy from one of the patients, together with the gross anatomic findings, are also discussed.

#### History and Epidemiology

The patients lived in rural districts of Long Island. The disease was contracted during the spring, summer, and fall, when outdoor activities were greatest. Twenty-four had a history of tick bite or contact with ticks, or had been working or camping in places where exposure to ticks was unavoidable. Two persons without a definite history of contact or exposure to ticks lived in sections where for many years spotted fever has occurred. One was a boy, aged twelve, and the other a governess, who during her fatal illness was never sufficiently coherent to answer questions. None of the cases could be associated with flea bites. The ages of the patients ranged from 7 to 73, and the majority were males.

The illnesses began usually from two to ten days following the history of contact with ticks, the onset being acute, with chills, fever, headache, general malaise, stiffness and pain in back of neck. and restlessness. No characteristic lesion was observed at the site of the attachment of the tick. and not infrequently the site of the bite could not be found. In the more severe infections, the patients showed drowsiness, stupor, and, at times, delirium. A red macular eruption appeared variously, between the second to the seventh day of illness, later becoming petechial in character; in some patients the lesions coalesced to form hemorrhagic blotches. The rash appeared usually on the extremities, later involving other parts of the body. In the majority of instances the infections were mild; a few were severe. One was complicated by diabetes mellitus and another with pneu-

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TABLE 1 .- ROCKY MOUNTAIN SPOTTED FEVER: AGGLUTINATION OF ALCOHOL-TREATED SUSPENSIONS OF PROTEUS X STRAINS IN THE SERUMS OF REPRESENTATIVE PATIENTS'

•	Duration of Illness					Duration of Illness			
History	(weeks)	OX 19	OX 2	хк	History	(weeks)	OX 19	ox 2	XK
H. L. Male—52 yrs. Onset 6/21/36 Recovered	$\frac{1^{1/2}}{2}$	320 640 320	40 160 80	0 0 0	D. M. Male—56 yrs. Onset 4/27/39 Recovered	11/2 2 3 31/2	0 80 160 160	0 0 80 80	0 0 0
J. J. Male—24 yrs. Onset 8/10/38 Recovered	1 2 6 9	20 160 20 20	160 1,280 160 20	0 10 0 0	P.G. Male—16 yrs. Onset 6/8/39 Recovered	1/2 2 10	0 1,280 80	0 0 0	0 0 0
P. M. Male—8 yrs. Onset 8/14/38 Recovered	1 2 4	20 1,280 320	0 80 20	0 10 0	W. C. Male—24 yrs. Onset 7/27/39 Recovered	1 2 3 4	0 160 320 1,280	0 0 0 0	0 0 0

<sup>\*</sup> The agglutinative titers of the serums represent reactions of not less than 3+; "marked agglutination" as herein used signifies a reaction of 4 or 3+ in a dilution of 1:160 or higher of the serum, and "partial agglutination" signifies a reaction of 4 or 3+ in a dilution of 1:80 or less of the serum.

The symptoms observed in this group corresponded to those of Rocky Mountain spotted fever described by Rumreich<sup>8</sup> and Parker<sup>6</sup>. Six of the patients died.

#### Histology

One of the more severe infections terminated fatally on the fourteenth day of illness.

This patient (J. J.) was a 20-year-old woman. The gross anatomic findings at autopsy were a macular erythematous eruption of the skin with confluent hemorrhagic areas. The spleen was enlarged, fairly soft, and weighed 200 Gm. The stomach was markedly dilated and showed submucous petechiae. The lungs were congested and edematous with scattered areas of consolidation in the lower lobes. Tissue from the skin, heart muscle, liver, and kidney was studied microscopically and showed foci of perivascular infiltration by inflammatory cells, including mononuclear, plasma, and mast cells, and also scattered lymphocytes and polymorphonuclear cells. There were swelling of the capillary endothelium and necrosis of vascular endothelial cells, often accompanied by thrombosis. In addition to these blood-vessel changes, the heart muscle showed a slight interstitial inflammatory reaction of variable density, with fragmentation of The liver showed moderate fatty muscle fibers. changes. Evidence of a lobular pneumonia was found and the exudate within the alveoli was seropurulent in character and apparently free from fibrin. These histologic changes are in accord with those recorded by Lillie.11

#### Serology

Serologic studies were carried out on sixty-nine blood serums from the twenty-six patients with Proteus strains (X 19, X 2, and X Kingsbury).

The Proteus X 2 and X Kingsbury strains were obtained from the National Collection of Type Cultures through Dr. A. Felix of the Lister Institute, London. The strain X 2 (No. 32282) was an Ovariant, and OX Kingsbury strain (No. 32274) later showed an O-HO reversion and was used in this The X 19 (No. form for the agglutination tests. 211) was the O-variant from a single colony fished

from the O-variant received originally from Dr. Mooser of Mexico City. The antigens12 prepared from these cultures were alcohol-treated suspensions of an opacity equal to that of the barium-sulfate standard No. 3. From one to four blood specimens from each patient were examined. The tests with unheated serums were incubated for two hours at from 35 to 37 C. and then refrigerated for from sixteen to eighteen hours. The agglutinative titers of a representative number of the serums with these Proteus X strains are recorded in Table 1.

Marked agglutination of Proteus OX 19 was obtained (see Table 1) with the serums from twentyfour patients and partial agglutination with the serums from two; marked agglutination of OX 2 also occurred with the serums from four of the patients and partial agglutination with serums from eight, the agglutinative titer being definitely higher in two instances with this strain than with OX 19. Proteus X Kingsbury was not agglutinated in significant titer by any of the serums.

It is also important to note the fluctuations in the titers of the reactions of the serums. The titers of specimens collected during the first week of illness ranged from 0 to 1:80, while titers from 1:160 to 1:2,500 were obtained with specimens collected between the second and third week after onset. Davis, Parker, and Walker,13 and more recently Parker,6 have emphasized the importance of examining multiple blood specimens from spotted fever patients. They point out that a single specimen collected during the first week of the disease is of little value, but evidence of a rise in agglutinative properties of the serum during the course of the disease may be of definite aid in diagnosis.

#### Summary

Serologic studies of multiple blood specimens from twenty-six residents of rural sections of Long Island with clinical and epidemiologic evidence of Rocky Mountain spotted fever are reported. Agglutination tests were performed using Proteus straine OX 19. OX 2, and X Kingsbury (this strain showing an O-HO reversion).

Marked agglutination of OX 19 occurred with the serums from twenty-four of the twenty-six patients, and partial agglutination with the serums from the remaining two; marked agglutination of OX 2 was obtained with the serums from four, and partial agglutination with serums from eight.

Marked fluctuation of the reactions, which provides a definite aid in diagnosis, occurred in many instances and the agglutination of OX 2 by some of the serums helped to differentiate Rocky Mountain spotted fever from endemic typhus.

This report supplements a study completed in 1935 with specimens from ten other patients on Long Island whose histories were suggestive of Rocky Mountain spotted fever; thus a total of thirty-six cases have been studied serologically since 1926.

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#### FAMILY SECURITY THEME OF PLANNED PARENTHOOD MEETING

"Family Security—A Basis for World Security" will be the theme of the twenty-eighth annual meeting of the Planned Parenthood Federation of America at the Waldorf-Astoria Hotel in New York City, January 24-27, 1944. Representatives of planned parenthood, state leagues, and local committees in all sections of the country will take

The question "Can We Build a Permanent Peace in an Overcrowded World?" will be discussed by noted speakers and postwar planners at the annual dinner on the evening of January 26 spokesmen for war workers, the armed forces, the Segro population, and other groups in modern society will be presented at a luncheon meeting on the theme "Parenthood—As Young America Wants It," on January 25.

Workshop sessions, to be held on January 25, 26, and 27, will bring together experts on planned parenthood and related subjects. They will consider a number of current and contemplated projects, including programs in the fields of social work, medicine and public health, industrial hygiene, nursing and religious leadership

Planned Parenthood services are available to the public through private physicians, 794 clinics, and the public health programs of seven states. The Federation and its affiliates serve thousands

of nurses, clergymen, and social workers each

Its activities in behalf of improved maternal health, child spacing, and planned families have been greatly increased since the beginning of the

#### HOW TO PREVENT COLDS

In 1908 my father built a sleeping porch on our house. We would all sleep out there in the winter, if it got cold enough, he said, and we wouldn't have any more colds So we all slept out on the sleeping porch. All I can remember about it now is that we had fun out there but I was tired all the time and was glad to get to school where I could sleep.

Then we started taking cold baths. My father ngged up a rubber shower contraption so that shower first thing in the morning. That was so that we wouldn't have any more colds. Cold shower work or the colds of the cold showers went on for quite a while and were very jolly. Every body slapped and snorted and shrieked in his turn and then waited to hear the next victim. We caught father using some warm water one morning, so the whole system broke down. I don't

remember having any colds in those days but that was forty years ago.

When I got older and left home, I didn't do anything about colds except carry a handkerchief. Those were busy, exciting days in which I don't

Those were busy, exching days in which I don't remember about colds. Otherwise occupied.

Now, in the year 1943, my wife says we should do something so the children won't have colds. She turns to me because I am a doctor and she doesn't know any better. Well, let's see, there have been quite a few fads about colds. Sunlamps, codliver oil, vaccines, and now we sleep with the windows closed. I think maybe the best thing would be to build a sleeping porch where the kids can take up the family pillow fights where they left off in 1910. I don't remember any colds then-or much of anything else. - L. M. D., in Journal-Lancel

# Therapeutics

#### CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the February 1 issue and will concern "Treatment of Edema by Drugs."

## Principles of Treatment of Edema and Dehydration

DR. McKeen Cattell: The problem of maintaining a normal distribution of body water is basic to a great many clinical conditions. Rational therapy is based upon a knowledge of the physiologic mechanisms concerned and the conference today will attempt to review these principles and lay the ground work for the conference next week, which will be on the treatment of edema by drugs. Today the topic is the "Principles of Treatment of Edema and Dehydration," to be introduced by Dr. Barr.

DR. DAVID P. BARR: It is a brave, and I think a foolhardy clinician, who will permit himself to speak on hydration and dehydration before this group.

Proup.

Edema, as all of you know, is an increase in extracellular water. Both in its generalized and in its local forms, it is an extraordinarily common symptom. The phenomenon has always attracted attention, and it is indeed remarkable that the ability of a normal person to drink water in large amounts without obvious change in his superficial tissues may be so completely lost that repeated ingestion of even small volumes of water may result in massive edema.

The first comprehensive attempt at an explanation of edema was made by Ernest Starling. In 1896 he published an article in the Journal of Physiology in which he stated his belief that the capillary wall was a membrane which was freely permeable to water and most crystalloids. He confirmed the long-held and rather obvious opinion that the chief force driving water from the blood stream was the intracapillary pressure, and he advanced the hypothesis that this was opposed by the colloidal osmotic pressure of the proteins, which could not pass through the membrane. It was Starling's idea that hydrostatic pressure tended to force fluid out of the capillaries, while the osmotic pressure tended to hold it in. This hypothesis of one of the world's greatest physiologists has stood the test of nearly fifty years, and it is accepted today with only minor modifications.

In the Starling hypothesis everything depends upon the properties and integrity of the capillary walls, which are truly remarkable structures. They appear as thin layers of endothelial cells but, as August Krogh and Sir Thomas Lewis have shown, they have an active function. They are independently contractile and are capable of responding individually and in a discriminating manner to the circulatory needs of tissues. According to Krogh's calculation their total area in a normal man approximates 68,000 square feet, or one and one-half acres. Among membranes in the animal body they seem to be unique in that they permit the passage of water and most crystalloids, including sodium and potassium salts, as well as sugar, urea, creatinine, and amino acids. They do not pass proteins and in their normal state are about 95 per cent efficient in holding them back. Passage both of crystalloids and of water is accomplished more rapidly than by most membranes. Landis figured that the capillary membranes pass water three thousand times more rapidly than the ordinary cell membrane and one hundred times more rapidly than does the membrane of a red blood cell. Landis also calculated that with the acre and a half of extremely permeable membrane and a hydrostatic pressure of only 10 mm. Hg any one of us should be able to filter out in ten seconds all of the water from his blood stream if there were no opposing force.

From the excellent studies of Krogh and others it is apparent that the amount of water which can actually pass out through the membranes will be dependent upon a number of factors including the total area of the capillary wall, the permeability of the membrane, and the balance between hydrostatic and colloidal osmotic pressure. Some evaluation of these factors is necessary to the understanding of clinical edema.

Estimation of intracapillary hydrostatic pressure is unsatisfactory, and direct measurement has been extremely difficult. Recently, however, Robert Chambers has accomplished the extraordinary feat of cannulizing individual capillaries

with capillary pipets of a diameter at the end of only 0.004 to 0.008 mm. Among other things he has shown that the capillary pressure in normal individuals varies from approximately 35 mm. at the arteriolar end to from 14 mm. to 13 mm. at the venous end. He found, as could have been predicted, that the capillary pressure was variable from minute to minute, that it differed in adjoining capillaries even though they might arise from the same arteriole, and that the pressure was dependent upon changes in systemic pressure, arterial pressure, and also on the state of venous pressure.

It is obvious that the intracapillary pressure can be increased either by vasodilatation of arterioles or by increasing venous pressure. Actually, changes in the arteriolar pressure are less potent in the production of edema than are variations in venous pressure. It is true that fluid may escape into the subcutaneous tissues and into the intercellular tissues following the application of heat or other methods of vasodilatation. Usually, however, the edema is not extreme. On the other hand, a venous pressure maintained in the arm at 80 mm. of mercury by means of a blood pressure cuff causes an enormous accumulation of extracellular fluid which is limited only by the increasing concentration of protein and the consequent rise in colloidal osmotic pressure within the capil-

The colloidal osmotic forces which oppose hydrostatic pressure are derived chiefly from albumin which, because of its small molecule, is about four times as effective in holding the water in the blood vessel as is globulin. The osmotic pressure of a 1 per cent solution of albumin is 5.5 mm., whereas a 1 per cent solution of globulin exerts a pressure of only 1.4 mm. The total osmotic pressure of the blood in the capillary averages about 25 to 30 mm. of mercury. This may be compared with 35 mm. of hydrostatic pressure in the arteriolar end of the capillary loop, and with 13 mm. of hydrostatic pressure in the venous end.

The experiments of Louis Leiter and of many others have shown that visible edema tends to develop if the total protein of the blood falls far below 5 Gm. or if the albumin fraction falls below 2 Gm. It is obvious that this is only an approximation, because the force of osmosis must be modified by forces of a most diverse character, either supporting or opposing it. Possibly it is more correct to say that any reduction in the protein and particularly in the albumin of the plasma tends to increase the amount of fluid in the tissues.

There have been many criticisms of Starling's hypothesis, most of which have arisen because

James P. France

the original statement was interpreted too literally and factors other than the two opposing forces of hydrostatic pressure and colloidal pressure were not sufficiently considered. Actually many other forces contribute to the development of edema.

One of these is the pressure in the tissues about the capillary walls. Its potential importance is easily demonstrated. Capillaries can be completely closed by external pressure. On the other hand, cupping, so much practiced by older physicians, produced a rapidly accumulating localized edema because of the negative pressure which the method produced in the tissues. Fat in the subcutaneous tissues exerts an influence and large accumulations of fat tend to limit edema. On the other hand, in an area like the under lid where there is no fat and the skin is very loose, fluid can escape because it is unopposed by tissue tension.

A second influence which modifies importantly a strict interpretation of the Starling hypothesis is the lymphatic circulation. It is only recently, through the studies of Dr. Mc-Master and others, that we have begun to realize how extremely important this factor may be. Lymphatic vessels are so numerous that one cannot stick a pin anywhere in the skin without rupturing several of them. The amount of fluid which can be carried away by the lymphatic circulation as a whole is extremely great. The fluid of the intercellular spaces tends to pass into the lymphatics because of the high protein content of lymph. Once started, the flow is maintained by a system of valves which prevent return of fluid to tissue spaces. It has long been known that blocking of the lymphatics alone, without modification of other factors, may cause massive edema. In considering factors contributing to edema it is therefore just as important to regard the state of the lymphatics as it is to evaluate the hydrostatic, the colloid, or the tissue pressure.

It is apparent that the entire mechanism which we have been discussing must be dependent also upon the intact capillary membrane. Starling assumed a membrane which was 95 per cent effective in holding in proteins. Any chemical, mechanical, thermal, or anoxemic injury of the epithelium of the capillary walls will tend to increase the permeability of the membrane. It is possible to injure the capillary walls to such an extent that the proteins pass freely from the blood into the subcutaneous tissues, thus eliminating as a factor the differential colloidal osmotic pressure. Under such circumstances the water may pass at least seven times as rapidly as it does through an uninjured membrane.

Still one other factor of great significance must be considered. This is the role of sodium chloride in the production of edema. It is common knowledge that when one ingests salt, thirst follows and water is drunk. If one ingests more salt, thirst is increased, and more water is taken. In the normal individual, however, it is quite difficult to produce any visible edema of the tissues even after enormous salt and water in-That the difficulty may be overcome, however, has been demonstrated by the sot who persistently salts his beer and eats pretzels while he is drinking. Assiduity in this occupation may result in a quite massive edema, which subsides rapidly without sequela in a few days. Under any circumstances, the amount of salt in the body is a most important influence in determining the degree of hydration. Accumulation of salt increases water storage; loss of salt causes dehydration. Since salt passes freely back and forth across the capillary membrane, the water held by each increment of salt distributes itself between plasma, intercellular spaces, and lymphatics. Nevertheless, when edema exists from any cause, its amount is automatically increased by accumulation of salt. Contrariwise, the elimination of salt from the body is one of the most effective means of combatting abnormal accumulations of fluid in intercellular spaces. It should also be emphasized that while all salts play a role in the hydration of the body, the chief factor is sodium chloride; furthermore, that because of the free interchange of chlorides and carbonates, the concentration of sodium itself is the most important single influence in determining the amount of water stored in the

In considering clinical edema it is necessary to take into account all of the factors which have been mentioned. The various forces—intracapillary blood pressure, colloidal osmotic pressure, lymphatic drainage, the state of the capillary membrane, and the total amount of salt in the body—combine to determine the amount of water which will be found in the intercellular tissues at any one time. The complicated interplay of factors may be illustrated by listing some of the abnormalities that may contribute to cardiac edema:

1. Increased venous pressure causes increased intracapillary blood pressure and also retards lymphatic drainage.

2. Hemodilution, often seen with increased blood volume, decreases the amount of the protein of the plasma and consequently diminishes its osmotic pressure.

3. Dilatation of capillaries increases the area of the capillary membrane and thereby the area for filtration.

4. Anoxemia of severe cardiac failure injures capillary membrane and increases its permeability to protein.

5. Malnutrition, a factor in some cardiac patients, may diminish the concentration of plasma proteins and so lessen colloidal osmotic pressure.

6. Loss of weight from malnutrition, with consequent loss of fat in the panniculus, decreases tissue pressure.

7. Edema itself may interfere seriously with lymphatic drainage.

8. Salt, if given unwisely to cardiacs, or even if permitted in normal amounts, will augment the collection of water in extracellular spaces.

Dr. Cattell: I think Dr. Barr is now ready for questions or comments from the group. His formulations raise a number of questions for the pharmacologists, and I would like to ask Dr. Gold whether this general picture is adequate to cover the mechanisms through which drugs act in relieving edema.

Dr. HARRY GOLD: From the standpoint of the use of drugs in the treatment of edema the emphasis upon salt is extremely important. We usually think of edema as an increase in water of the tissues, but what edema is in fact is an increase of the whole solution. The extracellular fluid is not only water. It is a composite of salts in a fixed concentration with an increased amount of all the solid ingredients which go into the extracellular fluid constituting the edema fluid. For that reason we have to consider in relation to the action of the diuretics what they do to salt excretion, not only what they do to water excretion. It may be well to consider the question whether some diuretics do not exert a primary action to increase the excretion of salt and that water follows. It may well be that in heart failure, for example, in which edema is outstanding, the primary trouble may be a diminished capacity of the kidney to excrete salt, or salt is being held in the tissues for some other reason, and that the primary point of attack, whether it is in the kidney or in some other organ, needs to be directed to the excretion of salt.

DR. WALTER MODELL: There are two paradoxes I would like Dr. Barr to discuss. One is the existence of edema and dehydration at the same time, and the other is the treatment of edema as Newburgh did many years ago with water, and which has since been advocated by Schroeder.

DR. C. H. WHEELER: I would like Dr. Barr to explain why it is generally considered inadvisable to give a patient with cardiac edema, for example, substantial amounts of sodium salts, whereas many physicians have no hesitancy in giving patients with cardiac edema potassium chloride or potassium citrate in place of sodium chloride.

I would also like to ask whether there is any information available about the optimal rate at which a healthy, young adult may be hydrated. For example, given a healthy young soldier in the desert who is extremely dehydrated, how fast is it safe to hydrate him?

Dr. CATTELL: Dr. Barr, you have plenty to start with.

Dr. Barr: Unfortunately, I shall be unable to answer all of these interesting questions. I should like, however, to speak a moment about dehydration, which is relevant to Dr. Modell's first question.

Dehydration may arise from either of two causes: First, it is obvious that if the body is deprived of water it will become dehydrated. We lose every day in our insensible perspiration, in our urine, and in our stools, a certain amount of water which must be replaced. The most prominent symptoms of dehydration from deprivation of water are extreme thirst and oliguria. Circulatory collapse is not frequent. There is much evidence to indicate that in this form of dehydration the cells of the body and the intercellular spaces share equally in the water depletion.

The second form of dehydration depends upon a depletion of base and particularly of sodium. If for any reason the body loses sodium, its ability to hold water is correspondingly decreased. This form of dehydration is observed in the adrenal insufficiency of Addison's disease. Following a large and prolonged loss of sodium from the body, there is hemoconcentration, great loss of the intercellular fluid, profound asthenia, low blood pressure, and circulatory collapse. Thirst may be entirely absent, and yet the dehydration may be as complete as if the body had been deprived of water over a long period. Loss of water from cells is not as prominent a feature as is hemoconcentration and dehydration of intercellular spaces. When we speak of dehydration it is necessary to take into account both the factors of salt loss and water loss, and the two clinical syndromes which may result from them.

How can we have edema and dehydration at the same time? It is obvious, if we have edema, that there are some parts of the body which are being hydrated. In other words, the intercellular tissues have plenty of water but there may be at the same time a considerable degree of hemoconcentration because of the loss of water from the blood stream to tissues. If this is due, as it usually is, to loss of protein from the

blood stream, the defect is irreversible. For the time being, the blood cannot be rehydrated. If the edema depends upon injury and increased permeability of the capillaries, to such an extent that protein has escaped from the blood stream, there may be loss of water in the capillaries with increase of water in the intercellular tissues. Again dehydration and edema are existing simultaneously in different parts of the body.

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I am interested in Dr. Wheeler's question. Is it dangerous to give water rapidly to a man who has long been deprived of water, and if so, why? I am not sure I know the answer. It is true that many men who have suffered prol. \_ged thirst have also been seriously undernourished. If there is a degree of malnutrition and a loss of protein from the blood plasma, water which is introduced rapidly into the body does not stay in the blood. It escapes through the capillary walls into the intercellular tissues. Under such circumstances it seems possible that cerebral edema with convulsions or pulmonary edema with sudden death might arise. I am not sure whether there might also be danger to a fellow who is not malnourished but is simply dehydrated. I am wondering if you have any data on this point, Dr. Cattell? Do you know whether in simple dehydration the administration of large amounts of water is dangerous?

DR. CATTELL: It is possible that the kidney is incapable of adjusting itself to a sudden increase in the water intake with sufficient rapidity, though I believe that if the kidney is functioning normally it could readily cope with the rate of absorption from the gastrointestinal tract. But we do know of a condition which we speak of as water intoxication. There are conditions of deficient salt concentration or disturbed renal function that might lead to difficulty.

VISITOR: Isn't the problem essentially the same as that of heat cramp, which arises from the depletion of sodium? With progressive dehydration from water loss there may also be loss of sodium. Rapid replacement of water without corresponding increase in salt may produce hypotonicity in the body and precipitate heat cramps.

DR. CATTELL: What are the possibilities of replacing water too rapidly by means other than by injection?

VISITOR: I think that the man on a raft who had been deprived of water for a long time could take isotonic sodium chloride solution in amounts sufficient to hydrate him.

Dr. Gold: I think that explanation also applies to Dr. Modell's question concerning the effectiveness of water as a diuretic in massive edema. It all comes back to the point that the edema fluid is not merely water. Edema fluid is a

solution of water and salts. If one gives a great deal of water one dilutes the salts in the spaces. This dilution excites the kidneys to excrete water, but the kidneys do not obtain the same stimulus from the administration of a solution of salt and water. If water alone is given, the kidneys will excrete it together with tissue salts. Thus the edema is reduced by reason of the fact that the salt comes out of the intercellular spaces. Six or 7 liters of water given to a person with waterlogged tissues often produce a rapid disappearance of the edema.

In this connection I would like to mention still another example of the coexistence of edema and dehydration. In cardiac patients with congestive failure there may be a concentration of salt in the tissue interspaces due to the fact that the body has difficulty in eliminating salt. The salt draws fluid from the cells as well as from the blood stream in order to maintain osmotic equilibrium. This produces at the same time edema and tissue desiccation. When the brine around the cells is reduced, as it may be, by restricting salt and giving the patient water freely, the edema is relieved and the tissue cells are hydrated by the same process.

Dr. Barr: I think the work which Schroeder did at the Rockefeller Hospital is important. As you know, we tend to limit the water intake of our cardiac patients. Schroeder showed that the daily administration of 3,000 cc. of water would actually cause diuresis in a severely decompensated cardiac patient if the intake of salt were kept below 1 Gm. in 24 hours. His work confirms Dr. Gold's contention that under certain conditions of salt equilibrium water is one of the most effective of diuretics.

Dr. Modell: In Newburgh's nephritics, who were studied much earlier than Dr. Schroeder's patients, edema seemed to depend on difficulty in concentrating urine, with the result that salt in the body was accumulated and caused edema. As soon as they were deprived of salt and ingested sufficient water, diuresis resulted, and edema quickly disappeared.

DR. CATTELL: There seems to be some hesitation in answering Dr. Wheeler's other question about sodium in edema. Why do we deprive our cardiacs of sodium chloride but give them potassium chloride?

Is it not because potassium promotes the elimination of sodium? It is not stored either in the blood stream or in tissue interspaces, but is distributed throughout the body, and then quickly eliminated. In the internal readjustment, as in the case of any electrolyte in excess, there is an increased excretion of an equivalent amount of electrolyte in the form of both sodium and potassium with a resultant actual loss of

sodium. Potassium may also be taken up by the cells, but as far as I know can play no part in the production of edema.

DR. WHEELER: Do we know why, when the body is starving for base, so to speak, if we then give potassium, the body does not use it? Do we know the fundamental reason why in such situations the body cannot use it?

DR. CATTELL: I think Dr. Modell has some ideas on that.

Dr. Modell: I suspect that some of the difficulty in accepting a pharmacologic difference between sodium and potassium lies in their close chemical relationship; both are bases and they are in the same group in the periodic table. Biologically, however, they are different. Sodium cannot pass through most cell membranes, while potassium can. Sodium is relatively difficult for the body to eliminate, potassium is very quickly eliminated.

Since sodium cannot pass through the cell membrane, but remains outside it, it holds water in order to maintain osmotic equilibrium. Thus it favors the accumulation of extracellular fluid; in other words, edema. Potassium, on the other hand, does not bind extracellular water, because it diffuses into all the fluid compartments and thus exerts no differential osmotic pressure. Hence it cannot produce edema; rather it is a diuretic. Sodium is the hydrating base, potassium is the dehydrating base.

In a condition such as that described by Dr. Wheeler, in which the body is starving for base, any base might do if all that was wanted was base. However, if we take a concrete example, the reason for a specific choice will perhaps be apparent. In diabetic acidosis, base is driven out of the body and the alkali reserve is depleted. What must not be overlooked is that the acidosis, the driving out of fixed base from the body, results in dehydration at the same time. while any base might be used to combat the acidosis itself, basic sodium salts are the drugs of choice because they combat the dehydration process at the same time. Their slow elimination also makes them especially useful here. If potassium were used in this condition, the state of dehydration would be aggravated. Sodium, therefore, is the desirable base, not because it is more of a base but because of the other special features of sodium. For the same reason it is not used in cardiac edema. In edema, on the other hand, potassium may be helpful, for as already explained, it drives sodium and consequently water out of the body.

In adrenal cortex insufficiency the distinction the body makes between sodium and potassium is very clear; the Addisonian excretes sodium and stores potassium. As a result he becomes dehydrated. You treat him in exactly the opposite way that you would a patient with cardiac edema. You put him on a high sodium, low potassium diet, and thus you hydrate him.

Dr. Cattell: As a matter of fact, potassium is extremely toxic. An appreciable increase in blood levels cannot be obtained without producing convulsions and cardiac irregularities.

STUDENT: What are the uses of potassium in dehydration?

Dr. Barr: If the dehydration were due to a loss of sodium, the administration of potassium would undoubtedly aggravate the condition because it would, as has just been pointed out, cause an increased excretion of sodium and its tendency would be to increase the excretion of water.

In dehydration arising from deprivation of water without the loss of salt, potassium salts could not be helpful, since their tendency to cause loss of sodium would also increase dehydration. Would you agree, Dr. Cattell?

Dr. CATTELL: Yes.

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DR CATTELL: There is the thought that the important element in retaining normal osmotic relations of the cell is the potassium inside the cell to balance the sodium outside. I have no idea whether there is any advantage in having potassium available for the purpose of balancing the higher concentration of sodium outside the cell present in dehydration, and thereby maintaining the normal osmotic relationship.

Dr. R. F. Pitts: There is an interesting paradoxic treatment of cardiac edema which highlights Dr. Gold's idea on the prominent role of sodium. It is possible in a patient with mild cardiac edema to start the process of diuresis by the administration of posterior pituitary hormone

Posterior pituitary hormone has two effects: to increase readsorption of water by the renal tubules, and to increase the excretion of sodium. By causing the cardiac patient to lose sodium, although reabsorption of water is temporarily increased, a state of imbalance between the sodium and the water in the body is produced. The readjustment of this imbalance often may,

after the antidimetic effect has ceased, be followed by a surprisingly satisfactory dimesis and a decrease of edema.

#### Summary

Dr. Modell: This conference has uncovered opinions on practically all the factors which may contribute to the production of edema and dehydration. A foundation has thus been laid for the rational treatment of these conditions.

The widely recognized hydrodynamic forces which may produce edema and the clinical conditions in which they may be found have been discussed. It was pointed out that increased venous pressure, increased intracapillary pressure, increased capillary permeability, decreased colloid osmotic pressure, lowered serum proteins, decreased tissue tension, and impaired lymphatic drainage all may play a role in the production of edema.

In addition water and sodium, slighted by many perhaps, were today mentioned as ranking in importance with the forces already listed. The ability of sodium to bind water has been emphasized. It was pointed out that the elimination of sodium from the diet may, in patients with edema, produce a diuresis, and conversely in states of dehydration, such as in adrenal cortex insufficiency and in diabetic acidosis, sodium is beneficial because it favors water storage. The point was raised whether some diuretics do not act primarily by increasing the elimination of stored sodium, with water diuresis following as a consequence of the primary sodium loss.

It was shown that potassium, the close chemical relative of sodium, is its pharmacologic antithesis, since it is diuretic in action and favors dehydration and the elimination of sodium. A biologic basis for the pharmacologic difference was advanced.

That water itself may be exceedingly useful in the elimination of massive edema in suitable cases as well as in the treatment of dehydration was also brought out.

The discussion served to emphasize that an understanding of the causes of edema and dehydration may, in each case, not only make possible a therapeutic solution of a particular problem but may also simplify therapy considerably.

#### FORUM ON ALLERGY

The sixth annual forum on allergy will be held in the Hotel Statler, St. Louis, Missouri, on Saturday and Sunday, January 22-23.

There will be fifteen study groups, as well as lectures, pictures, demonstrations, and panel discussions.

# Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Mcdical Society of the State of New York are published in this section of the Journal. bers of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D.; and Charles D. Post, M.D.

#### Industrial Medicine

LECTURE on industrial medicine was given A before the Jefferson County Medical Society. The meeting was held on Thursday, December 9, 1943, at the Black River Valley Club in Watertown, New York.
"Industrial Dermatoses" was the title of the

lecture; Dr. Leon H. Griggs, associate professor of clinical medicine at Syracuse University College of Medicine, was the speaker. This instruction was provided by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

#### Angina Pectoris and Coronary Occlusion

A SINGLE lecture on general medicine was presented to the Greene County Medical Society on Thursday, December 23, 1943, at 9:00

The lecture took place at the Memorial Hos-

pital of Greene County, Catskill

The subject was "What Can We Do for Angina

Pectoris and Coronary Occlusion?" The lecture was delivered by Dr. Clayton W. Greene, professor of medicine at the University of Bulialo School of Medicine in Buffalo.

The Medical Society of the State of New York and the New York State Department of Health

jointly provided this instruction.

#### Tropical Medicine

THE Broome County Medical Society will hear two lectures on tropical medicine on Tuesday evenings in January and February, at 8:30 P.M., in the Doctors Memorial Building, Binghamton City Hospital, Binghamton.

On January 11, 1944, Dr. Barton F. Hauenstein will speak on the subject, "The Present and Postwar Importance of the Dysenteries." On February 8, 1944, the lecture "The Importance of Early Diag-

nosis and Treatment of Falciparum Malaria" will be given by Dr. Harry Most, professor of clinical pathology and assistant professor of preventive medicine at the New York University College of Medicine.

This instruction is presented as a cooperative endeavor between the New York State Department of Health and the Medical Society of the State of

New York.

#### WOMEN WAR WORKERS AND PREGNANCY

A three-month survey of women war workers in industry in eleven states was recently completed by Dr. Charlotte Silverman of the staff of the Children's Bureau. She visited 73 industrial plants where about 273,000 women are employed, and her study was concerned chiefly with the question

of maternity leaves and maternity care.

Dr. Silverman found that generally the industries kept inadequate records of pregnancy among their employees. Records were kept only in the larger industrial plants and in those which had employed women for years. Of the 73 firms studied, 64 were found to have fixed policies in regard to pregnant employees. In 19 of these, pregnant women were discharged either immediately on discovery of the pregnancy, or from two to six months later, or on the advice of the company physician. In 45 plants there was a fixed policy of leave of absence either on discovery of the pregnancy or within certain limited periods. The most lenient were the textile companies, which have for many years permitted pregnant women to work as long as they wished and to return to work when they so desired.

Of the 73 companies studied, only 26 could furnish records of the pregnancies among their employees; the others could give only estimates. On the basis of these figures the incidence of pregnancy was calculated to vary from 3.2 to 6 cases per 1,000

women working per month.

The question of pregnancy as related to women's war work has also become acute in England, where a very large number of women have taken an important place in industry. As the London correspondent of the Journal of the American Medical Association (November 7, 1942) points out, some firms send expectant mothers off duty for some weeks before and after labor, but others do not. Many women however do not willingly give up Many women, however, do not willingly give up their work because of financial considerations, yet the health of the mother during the last weeks of pregnancy and during lactation is of profound

importance to the future of the country.

The National Council of Women has requested the Ministry of Health for special financial allowances for women under these circumstances. The Council holds that a woman should not be working in any paid employment during the last eight weeks

of pregnancy and the first eight weeks of lactation.
The National Insurance Act of England does not recognize pregnancy as incapacitating from work and therefore the pregnant woman is not qualified for sickness benefits. The suggestion was therefore made that insurance benefits should be paid to insured pregnant women. The Council wishes the insurance companies to recognize the last eight weeks of pregnancy as a period of in-capacity within the meaning of the insurance act. -Human Fertility

#### Medical News

#### City Health Agencies Start X-Raying of Employee Groups

THE New York Tuberculosis and Health Association, in cooperation with the New York City Department of Health, inaugurated its program of mass x-raying of employee groups on December 1 at the Breslee Manufacturing Company, which is the first firm in Manhattan to avail itself of the Association's new service. The program also provides for a follow-up service for those whose x-rays reveal positive or suspicious findings.

The Breslee Manufacturing Company, which produces critical war material, has 750 employees at its 151 West 26th Street and 3 West 19th Street

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Arthur A. Gardner, president of the Breslee

Company, said that the suggestion for the x-raying was made by an employee through the company's labor management committee and that before December 1,85 per cent of the personnel had given written consent for the examinations. Because many employees have asked that members of their families be included, Mr. Gardner has arranged to have them present also when the x-ray pictures

The x-raying of Breslee's employees, Mr. Gardner said, is another of the management's services to its employees in expediting war production. Among other services is a vitamin bar and an in-

firmary with a full-time nurse in attendance.

#### General Magee Heads Medical Information Office

MAJOR General James Carre Magee, Medical Corps, United States Army, retired, has been named executive officer of the information service of the division of medical sciences of the National Research Council. He assumed office on December 1.

General Magee will devote his full time to the organization of a central office in the National Research Council which will collect medical reports and records dealing widely with military medical practice, civilian practice as affected by the war, medical education and research, and the distribu-tion of diseases. This material, so far as military necessities permit, will be made available by publications, summaries, and notes.

This service has been established by the Council under the recent grant of the Johnson & Johnson Research Foundation of New Brunswick, New Jersey, by which \$75,000 was made available to the Council to enable it to assemble and disseminate, as far as possible, medical information pertaining to the war effort. This enterprise is expected to fill a long-felt need in providing up-to-date information to the medical officers of the armed information to the medical officers of the armed services both in this country and abroad and in making the experience of war medicine available as far as possible to civilian physicians.

General Magee has had a distinguished record

in the Medical Corps of the Army. A graduate of Jefferson Medical College in 1905, he has spent his entire professional life in the medical service of the Army. He was assigned to the Philippines before the outbreak of the first World War and then recalled for European duty from 1917 to 1919. He was appointed Surgeon General of the Army in 1939 and on May 31, 1943, he was retired on completion of the four-year term of duty. It was under his direction that the Medical Corns was under his direction that the Medical Corps was enormously expanded to meet the demands of the present war and the program of service adopted which has led to the remarkable health record of the Army. General Magee holds the honorary degree of Doctor of Science from Jefferson Medical College, and was recently awarded the Distinguished Service Medal for outstanding services as Surgeon

The citation for the Distinguished Service Medal said that General Magee's "farsighted and dynamic energy was greatly responsible for our soldiers being able thus far to emerge from battle with the lowest mortality rate among the wounded in our history," and pointed out that "the Army has benefited greatly from his eagerness to avail himself of the most expert advice and data from the civilian medical profession in the fields of research against epidemics."

#### Postgraduate Course in Industrial Medicine at Long Island College

EIGHTEEN physicians who completed the second postgraduate course in industrial medicine at the Long Island College of Medicine, Brooklyn, on November 12 are undergoing super-vised training periods of one to four weeks in the medical department of industrial

vised training periods of one to four weeks in the medical departments of a number of industrial concerns in New York, New Jersey, and Massachusetts, according to a report issued by the College. The companies where the training is being conducted are Bell Telephone Laboratories, Consolidated Edison Company, and Western Electric Company, New York City; American Cyanamid Company and Merck & Company, Inc., New Jersey; and the Norton Company, Worcester, Massachusetts. Massachusetts.

Seventy-two matriculants from five states, including members of the armed forces and the U.S. Public Health Service, enrolled for the two weeks' course of lectures and clinics under the auspices of the Department of Preventive Medicine and Community Health. Sixty-four of the matriculants were from New York State. Thirty-three authorities in the field of industrial medicine and surgery joined with members of the College staff in presenting the afternoon and evening lectures.

Clinics were held each morning from November 2 to November 12. They included two given at the College by the departments of surgery and radiology and others in the medical departments of the American Telephone and Telegraph Company, Metropolitan Life Insurance Company, Nassau Smelting and Refining Company, Sperry Gyroscope Company, and the New York State Department of Labor's Bureau of Industrial Hy-giene. The New York State Compensation Medical Bill Arbitration Board held a special hearing at the College for the benefit of matriculants.

The first week of the course was devoted to a

study of the organization and administration of industrial medical departments in small and large plants, the technic of physical examinations, occupational diseases, compensation laws, industrial

hazards, and plant sanitation and hygiene.

During the second week the course stressed special problems of industrial toxicology, accidents and rehabilitation, health education, nutrition, and industrial health insurance programs. The clinics were arranged to demonstrate and apply

the didactic material of the lectures. Among the companies from which members of medical staffs enrolled for the course were the Babcock & Wilcox Company, Ohio; Brooklyn Union Gas Company, Mergenthaler Linotype Company, Brooklyn; National Biscuit Company, Brooklyn New York; Travelers Insurance Company, Connecticut; E. R. Squibb & Company, Brooklyn; and Todd Shipyards, New York.

The report pointed out that the College had given this course for the second consecutive year as a contribution to the war effort and that seventytwo enrolled this year compared with fifty-nine in

1942

Designed as an orientation course for physicians engaged in or desiring to enter industrial practice, the course has become of increasing importance in the training of physicians for war industries. Five of the physicians enrolled last year have secured full-time positions with industrial concerns, four of which are engaged in war production, the report stated, and many other firms with war work enrolled one or more physicians.

A binder containing the complete texts of the lectures is in preparation and will be available for purchase from the College after December 31.

Through a register of industrial physicians now maintained by the Department of Administration, further help to industrial concerns seeking medical personnel has been provided by the College. The register is consulted by these concerns and a selection made of candidates, who are then contacted.

The report was prepared by Dr. Thomas D. Dublin, associate professor and head of the Department of Preventive Medicine and Community Health, and Alfred R. Crawford of the Department of Administration, who served as secretary of the

"The Representative Committee of the British Medical Association advocates as a step forward in Great Britain the extension of the National Health Insurance Plan to include the dependents of insured persons and others of like economic status, and to

cover consultant and specialistic services and laboratory and hospital facilities, as well as general practitioner services. This statement indicates at once how completely lacking has been the National Health Insurance Plan in approximating anything resembling the quality of medical service that prevails in the United States. This recommendation again emphasizes that the National Health Insurance Plan of Great Britain covers wage earners up to a certain level of income only, that it has not included the dependents, that it has not included others than wage earners of low economic status, that it has not provided consultant and specialistic service, or hospital facilities or laboratory service. The gradual development of prepayment plans in the United States has recognized the need for such services. The medical profession has approved prepayment plans to cover the costs of hospitalization, and also prepayment plans on a cash indemnity basis for meeting the costs of medical care. Certainly the gradual evolution in the practice of medicine that has taken place in this country has led to higher standards of medical practice and of medical service than are elsewhere available. The maintenance of the quality of the service is fundamental in any health program.

"The American Medical Association, through its House of Delegates, its Board of Trustees, and its Council on Medical Service and Public Relations, has urged again and again the continuing evolution of medical practice, based on sound experimentation. Already many state and county medical societies, many industries, and many insurance bodies have set up experiments of this type, some of which have already proved to be unsound. In this connection, therefore, the final recommendations of the Representative Committee of the British Medical Association, and of the Medical Planning Commission, deserve increased emphasis. They

say:
"There should be initiated, by arrangement and the and agreement between the government and the profession, organized experiments in the methods of practice, such as group practice, including health centers of different kinds, which should extend to general practitioner hospital units attached to general hospitals. Future developments in group practice should depend on the results of such clinical and administrative experimentation.

"Only by such controlled scientific experimentation can a sound system of medical service to meet the needs of all the persons in the community be

developed."

#### County News

Albany County

Dr. H. Charles Goldberg has retired as medical examiner and eye specialist in the workmens' compensation division of the State Labor Department. He held the state position for twenty-one years.

Dr. Goldberg will enter the private practice of

medicine in New York City.\*

Broax County

A regular meeting of the county society, held at Burnside Manor on December 15, featured a program on the Wagner-Murray-Dingell Bill. The speakers were Congressman Walter A. Lynch and Dr. Nathan B. Van Etten.

The North Bronx Medical Society held a meeting on December 16, which was sponsored on behalf of the Russian War Relief, the Russian War Relief Physicians' Committee, and the American-Soviet Medical Society. The program was devoted to a discussion of "Wartime Medicine in the Soviet Union" and included the first showing in the Bronx of the Society moving picture, "Experiments in the Revival of Organisms.

The meeting was addressed by Prof. Vladimir Lebedenko, U.S.S.R. representative of the U.S.S.R. Red Cross, and Dr. Gregory Zilboorg, psychiatrist.
Wives and friends of members of the society were

invited.

The effect of cold weather upon the circulatory system, and some of the ailments contracted from exposure to the cold, were discussed by Dr. Anna

<sup>\*</sup> Asterisk indicates that item is from a local newspaper.

Samuelson in a talk over Station WBNX on November 29. The broadcast was under the joint auspices of the Bronx County Medical Society and the Bronx Tuberculosis and Health Committee.\*

#### Broome County

The annual dinner meeting of the county society was held in the Art Gallery of the Arlington Hotel in Binghamton on December 14. Wives of mem-

bers of the society were guests for the evening.

The speaker was Dr. Hiram Gruber Woolf, former Episcopal chaplain at Cornell University who related his experiences under the rule of two

dictators-Hitler and Mussolini.

The outbreak of the war found Dr. Woolf serving the American churches in Munich and Dresden, as well as ministering to the English congregation in Berlin and acting as chaplain to the British prisoners of war in Germany. He spent six months incommunicado in the Regina Coeli prison in Rome and was sentenced to thirty years' imprisonment as an international spy. He returned to America in June, 1942.

#### Chemung County

Dr. R. Scott Howland, of Elmira, has been elected president of the Chemung County Medical Society, to succeed Dr. Florence S. Hassett.

Other officers are: Vice-president, Dr. William T. Boland; secretary, Dr. John H. Burke, Jr;

treasurer, Dr. M. Frederick Butler.

In a resolution on the death of Comdr. Charles L. Stevens, former Elmira physician, the society bore witness "to his character and high professional qualifications."
"Charley Stevens was thoroughly trained for

his high mission," the resolution continued.

"He was devoted to his profession, to his patients, and to his fellow men. He fully measured up to what Rudyard Kipling describes as a profession of high ethics and lofty ideals which exacts from its followers the largest responsibilities and the highest death rate," the resolution concluded.

The communication, to be forwarded to Commander Stevens' family, was signed by Drs. Herbert W. Fudge, Arthur W. Booth, George R. Murphy, Edward L. Curvish, and Ross G. Loop.

#### Erie County

Dr. Rose Lenahan entertained the Women's Physicians League at dinner at the Hotel Buffalo on November 20. The guest speaker was Dr. Dexter Levy, who discussed "Newer Concepts in Diagnosis and Treatment of Heart Disease."

Among the guests were Drs. Alice Murray, Anna M. Schultz, Anna P. Walsh, Katherine Carnivale, Alta S. Green, Mary Catalano, Thelma Brock, Marion Schierer, Clara March, Agnes McGavin, Lois Plummer, Helen Toskov, and Louise Beamis.\*

"Thiouracil in the Treatment of Thyrotoxicosis" was the subject of an address by Grosvenor W. Bissell, M.D., at the meeting of the Buffalo Academy of Medicine on December 8.

Dr. Bissell, a graduate of the University of Bufialo Medical School, is Research Fellow in Medicine at the Harvard University Medical School.

Discussion which followed the address was by Ivan Hekimian, M.D., Roger Hubbard, Ph.D., David K. Miller, M.D., Walter L. Machemer,

M.D., Alfred H. Noehren, M.D., and Stephen L. Walczak, M.D.

The next stated meeting of the Academy is scheduled for January 12.

#### Essex County

Lt. John F. Spranz of the United States Medical Corps, who has been a patient at the Fletcher General Hospital, Cambridge, Ohio, and who has been retired from the Army, has returned to his home in Au Sable Forks.

Lieutenant Spranz entered active service with the Army on September 17, 1942. During his service he was stationed at the Port of Embarkation in Charleston, South Carolina, in the capacity of port roentgenologist. During the months of February and March, 1943, he was stationed at the Army Medical School, located at the University of Tennessee, Memphis, Tennessee, where he took special study in x-ray and fluoroscopy.

Lt. Spranz is preparing to open his office for the

practice of medicine in the near future.\*

#### Franklin County

The Franklin County Medical Society held its annual meeting on the afternoon of November 18 in the Nurses' Classroom at the Alice Hyde Memorial Hospital.

Dr. George W. Wright, of Saranac Lake, was the main speaker. A business meeting followed his talk, at which the election of officers for the coming

year was held.

Dinner was served at the Elks Club at 6 o'clock. The list of officers will be published in a later issue.\*

Socialized medicine was the theme of an address by Dr. F. F. Finney at the Malone Rotary Club on November 18.\*

#### Greater New York

The thirteenth annual medical-dental convention arranged by the Joint Committee of the Organized Medical and Dental Professions of the City of New York was held at the Hotel Pennsylvania in New York City on December 7 and December 9.

Presiding at the December 7 session were Dr. J. Presiding at the December 7 session were Dr. J. Stanley Kenney, president of the Medical Society of the County of New York, and Dr. Frederick W. Williams, president of the Bronx County Medical Society. The following program was presented on that day: "Pathology of the Oral Cavity in Relation to Systemic Diseases," by Charles F. Geschickter, M.D.; "Dental Infection in Rheumatic Diseases," by Ralph Boots, M.D.; and "Oral Pathology in Relation to Constitutional Diseases," by Andrew A. Egyston, M.D. by Andrew A. Eggston, M.D.

Dr. John J. Gainey, president of the Kings County Medical Society, and Dr. Jacob Werne, president of the Queens County Medical Society, presided at the session held on December 9. There were two scientific addresses on the program: "Effects of Vitamin Deficiencies upon the Oral Mucosa," by Norman Jolliffe, M.D., and "Rheumatic Fever in Its Relation to Dental Disease," by Leo Taran,

Members of the convention committee were: Albert F. R. Andresen, M.D., chairman; G. B. Gilmore, M.D., vice-chairman; Robert M. Fischer, D.D.S., secretary-treasurer; Henry S. Dunning, D.D.S., secretary-treasurer; Henry S. Dunning, M.D., D.D.S.; George H. Dow, M.D.; Robert L. Heinze, D.D.S.; Edward A. Lusterman, D.D.S.; Frederick F. Pfeiffer, D.D.S.; and John F. Wolfram, M.D.

#### Kings County

Only 84 Brooklyn doctors under 38 years of age, out of 5,882 physicians registered in the borough since Pearl Harbor and an estimated 5,100 in practice then, have not applied for commissions in the armed services, according to a survey by the Kings County Medical Society made public on November 6.

Out of these 84, the survey shows, 53 are listed as essential in their civilian practice. Only 31 have refused to apply for commissions or refused

commissions offered them.

Brooklyn had about 2,500 doctors under 38, according to Dr. Charles F. McCarty, secretary of the society's War Participation Committee, which made the survey, so that the 84 who have not applied for military service make up 3.3 per cent of the total, as against 96.7 per cent who have.

Not all who applied obtained commissions, the

survey shows,\*

#### Monroe County

A public mass meeting was held in Rochester on Wednesday, December 15, on the question, "Shall Health Planning Be an Integral Part of a Master

Postwar Plan for a Better Rochester?"

Arrangements were in charge of the Health Education Committee of the Medical Society of the County of Monroe. The main speaker was Dr. W. W. Bauer, director, Bureau of Health Education, American Medical Association. Other features of the program included a health exhibit, health educational film, and a noon meeting of combined service clubs.\*

#### Montgomery County

Dr. Stella Partyka has returned to her native city of Amsterdam, where she has opened an office

for the general practice of medicine.

Dr. Partyka went with her parents to Torrington, Connecticut, in 1916 and there received her early education, having been graduated from Torrington High School at the head of her class. She took a premedical course at the Washington Square College of New York University and was awarded a Bachelor of Science degree. While attending this college she was elected to the Aesclepiad, a woman's national honorary medical society.

She next studied medicine at the Bellevue Medical College in New York City and later continued these studies at the University of Krakow in Poland, where she was awarded the degree of

Doctor of Medicine in 1938.

While in Poland Dr. Partyka served an internship at the Children's Sanatarium, at the health resort in Zaxopane, and at St. Lazarus' Hospital

in Krakow.

Returning to the United States she was intern and later resident physician at the Norwegian Lutheran Deaconess Hospital in Brooklyn for more than two years. From July, 1942, to August, 1943, Dr. Partyka was assistant physician at the Montgomery Sanatorium.\*

#### New York County

At the annual meeting of the county society held on November 22 the following officers were elected for 1944: president-elect, Kirby Dwight; first vice-president, Roy B. Henline; second vice-president, Luther B. MacKenzie; secretary, B. Wallace Hamilton; assistant secretary, Beverly C. Smith; treasurer, Fenwick Beekman; assistant treasurer, John Carroll; censors for three years, Ira Cohen and William B. Rawls; chairman, Committee on Legislation, Horace Ayers; chairman, Committee on Public Relations, John DeP. Currence; chairman, Committee on Medical Economics, Maurice O'Shea; chairman, Committee on Membership, Carl Binger; trustee for five years, J. Stanley Kenney; delegates to the Medical Society of the State of New York, to serve two years: W. P. Anderton, Ralph Barrett, Emily D. Barringer, Fenwick Beekman, Conrad Berens, Harold B. Davidson, Roy B. Henline, Samuel Kauffman, J. Stanley Kenney, William B. Long, Madge McGuinness, Nathan Ratnoff, William B. Rawls.

Algernon B. Reese, M.D., has been chosen secretary for Ophthalmology of the American Academy of Ophthalmology and Otolaryngology for the ensuing year.

At the annual meeting of the Southern Surgical Association in New Orleans, La., December 7-9, Charles Gordon Heyd, M.D., discussed "Voice Disabilities Following Thyroid Surgery."

Willard C. Rappleye, M.D., has been appointed to the Advisory Committee on Education of the National Association for the Prevention of Blindness.

Lt. Joseph Zimmerman, MC, A.U.S., has been appointed chief of neuropsychiatry at an American base hospital in North Africa, according to a recent report in the New York Times.

Dr. William Dock, professor of pathology at Cornell University Medical College since 1940, has been appointed professor of medicine and chairman of the department at the University of Southern California School of Medicine, Los Angeles.

A new national headquarters of the medical division of the War Shipping Administration and the United Seamen's Service has been opened at 107 Washington Street. Dr. Daniel Blain, director of the division, announced that the headquarters will be the administrative center of the national W. S. A.-U. S. S. medical program.\*

Dr. Maria Escobar, Guatemalan physician, is the only woman among seventeen recipients of Latin-American scholarships offered annually by a New York City committee to residents of the neighbor republics, entitling them to a year's study in New York City, plus all their living expenses. These scholarships are sponsored jointly by New York business firms and the Co-ordinator of Inter-American Affairs.

of Inter-American Affairs.
"In my country it is very important to improve the health of children," Dr. Escobar said in an interview the other day at International House, 500 Riverside Drive, where the group is quartered. "I have been studying pediatries at the Post-

Graduate Hospital and have had also a four-week course in children's health work at the Kips Bay-Yorkville Health Center. Now I am taking some courses at Teachers College in child development and care, and I am awaiting an opportunity to do some practical work with children in a big city hospital. It is all a wonderful experience for me."

Dr. Escobar was the only woman in a class of a hundred medical students graduated from the University of Guatemala. In fact, she is Guate-

mala's first woman physician.\*

Dr. Walter Timme, director of the neuro-endocrinology department of the Neurological Institute of New York and professor of clinical neurology at Columbia University College of Physicians and Surgeons, received one of four Townsend Harris medals awarded at the sixty-third annual alumni dinner of City College in the Hotel Roosevelt, November 13. The medals are named after the founder of the college and are awarded annually. Dr. Timme was graduated in the class of 1893. The citation accompanying the award acknowledged Dr. Timme's contributions to the field of endo-crinology, in which he is credited with being a pioneer, and recognized his contribution to the art and science of healing as "teacher, hospital consultant, and specialist in practice."

A one-year grant has been allocated by the Commonwealth Fund to the New York City Mental Hygiene Committee, State Charities Aid Association, to study the psychiatric needs of men dis-charged from or rejected for military service.

The professional staff for the project includes Dr. Sol W. Ginsburg, psychiatrist, Mrs. Rae L. Weisman, and Mrs. Bluma Swerdloff, psychiatric social workers, Ruth Valentine, psychologist, and Mr. and Mrs. Raymond Franzen, research consultants. A study of 500 each of psychiatric rejections and discharges will be made in order that an accurate picture may be obtained for recommendations to fill whatever needs may be determined, especially to find out how many persons in these groups need rehabilitative services which the community does not offer.

#### Ontario County

Dr. Daniel A. Eiseline, of Shortsville, was host to the Canandaigua Medical Society on December 9. Dr. C. Harvey Jewett was reader.\*

#### Orange County

After having served over a year with the U.S. Army Medical Corps, Dr. Meyer Zodikoff has been placed on the inactive list and has resumed his practice in Newburgh.

A captain in the Medical Corps, Dr. Zodikoff returned from North Africa in June and since then has been undergoing medical care. He was placed on the inactive list because of a medical disability.

Metropolitan hospitals in New York before taking up a practice in Newburgh.\*

#### Queens County

Plans for the postwar rehabilitation of Queens-Nassau podiatrists now serving in the armed forces were discussed at the November meeting of the Queens County Podiatry Society.

Approximately twenty-five per cent of the practicing podiatrists in Queens and Nassau counties are now serving in every branch of the armed forces including the maritime service and the Coast Guard. Several podiatrists in the Army were recently assigned to newly established camps for the WAC.
"Regional Anatomy" was the topic of a round-

table discussion which preceded the business

meeting.\*

#### Rensselaer County

The Rensselaer County Medical Society nominated Dr. Richard P. Doody for the presidency at the regular meeting in the Health Center on Novem-

Others on the slate were Dr. John F. Connor, vice-president; Dr. Ranald E. Mussey, secretary; Dr. F. J. Fagan, treasurer; and Dr. Charles H. Sproat and Dr. William Trotter, censors.
Dr. John D. Carroll and Dr. Stephen H. Curtis

were nominated as delegates to the state convention, with Dr. Clement J. Handron and Dr. John Sibbald as alternates.

The group discussed the Wagner-Murray bill and the effect of socialized medicine on all phases of the profession. They also saw a sound movie on peptic ulcer.\*

#### Schenectady County

The annual tuberculin tests given seniors and those participating in competitive athletics was given on November 15 at Nott Terrace High School in Schenectady.

Through the cooperation of the Schenectady County Medical Society, the chamber of commerce health committee, the city health department, and the Schenectady county tuberculosis committee, the improved medical measures for discovery of active tuberculosis or an infection are to be made available, without charge, to pupils in the city's schools.

#### Steuben County

Dr. E. H. Ober, of Painted Post, was named president of the Steuben County Medical Society and Dr. R. J. Shafer, of Corning, was re-elected secretary-treasurer, at a luncheon meeting of the association in Bath on November 11. Dr. Stacy Koenemann, of Avoca, was elected vice-president, an office formerly held by Dr. Ober. The retiring president formerly held by Dr. Ober. is Dr. Stuart H. Bean, of Addison.

Dr. H. B. Smith, of Corning, and Dr. L. M. Kysor, of Hornell, were elected delegates to the State Society convention. Dr. Luther A. Thomas, of Painted Post, and Dr. William Tracy, of Hornell, were chosen alternates. Re-elected to three-year terms as censors of the society were Dr. C. M. Lapp, of Corning, and Dr. A. E. Richmond, of Wayland. Dr. Ober presided in the absence of

Dr. Lapp.
The speaker, Dr. Forrest Young, associate professor of surgery at the University of Rochester School of Medicine and Dentistry, spoke on the early and late treatment of burns. He discussed the use of plasma as a precaution against shock and the use of various sulfa ointments, tannic acid, and saline dressings. His talk was illustrated with lantern slides.\*

#### **Ulster County**

Dr. Frederic W. Holcomb, superintendent of the Ulster County Tuberculosis Hospital, was the

guest speaker at the weekly luncheon of the Kings-

ton Lions Club on November 2.

Dr. Holcomb brought to the attention of the Lions Club the valuable work which the Ulster County Tuberculosis Hospital is performing during wartime in the continuing fight on the disease, revealing definite figures on this disease as they have affected Ulster County residents and the successful fight which is being waged by the modern county institution.

Dr. Holcomb also covered in his address the economic loss to the nation and also to local residents as a result of the continuing effects of tuberculosis. He also dwelt upon the part that the United States Army is playing today in recognizing the carriers of the disease through physical examinations which

are conducted at induction centers.

Dr. Holcomb also made a plea to employers to have sympathetic consideration for tuberculars who are able to take their place in war industry and

other fields.

Following his address, President Baer thanked Dr. Holcomb in behalf of the club and praised his address as one of the finest Kingston Lions Club members have been privileged to hear.—Kingston Freeman

#### Warren County

Dr. Herbert A. Bartholomew, Glens Falls physician and surgeon and a former Warren County coroner, now a lieutenant commander in the United States Naval Reserve, has been elected a Fellow of the American College of Surgeons.

#### Westchester County

After having served a year as a Captain in the Army Medical Corps, Dr. Henry J. Margotta, City Physician of New Rochelle, has been placed on inactive status and resumed his duties as City Physician on November 1. Dr. Margotta served for a while as battalion surgeon with the 11th Armored Division and was later assigned to the staff of La-Garde General Hospital in New Orleans. Dr. Clifford H. Fulton, Examining Physician for the Board of Education, took Dr. Margotta's place during his absence and has now returned to his post with the school system.

Dr. George Hallemann, of Mount Vernon, received his final citizenship papers on September 1, 1943, and is now a citizen of the United States.

#### Deaths of New York State Physicians

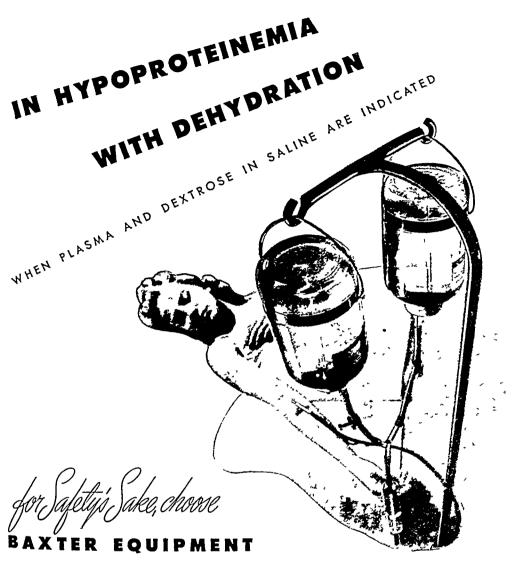
Name	Age	Medical School	Date of Death	Residence
Julius S. Berkman	67	Buffalo	September 8	Rochester
David Cohn	63	Buffalo	August 21	Buffalo
LaRue Colegrove	79	Buffalo	November 11	Elmira
Edmund L. Dow	73	P. & S., N.Y.	December 1	Manhattan
Clara O. Griffin	72	Buffalo	November 18	Eden
Israel Grushlaw	67	Pennsylvania	December 9	Manhattan
John J. Madden	61	Harvard	November 23	Brooklyn
Charles H. May	82	P. & S., N.Y.	December 7	Manhattan
William T. Sherman	78	Bellevue	December 10	Crown Point
George W. Simrell	74	L.I.C. Hosp.	November 30	Brooklyn
Emery Singer	57	Kolozsvar	August 23	Manhattan
Walter T. Stenson	48	$\mathbf{McGill}$	December 8	Manhattan
Charles L. Stevens	39	Buffalo	November 19	Elmira
James T. Sweetman, Jr.	81	Howard	December 13	Ballston Spa
Albert W. Wagner	61	Buffalo	November 15	Buffalo Binghamton
John B. Walling	76	L.I.C. Hosp.	November 18	Dingnamon

#### AVIATOR "BLINDNESS" REPORTED TO DOCTORS

Blindness on one side, which aviators get at high altitudes, was described to the Aero Medical Association of the United States at a recent meeting in Cincinnati.

The cause is not in the eyes but in the brain, owing to some unidentified disturbance in gray matter created by the low pressures of the atmospheres above 30,000 feet.

The blindness and discovery of the brain disturbance were exhibited by the Laboratory of Aviation Medicine, University of Cincinnati, by Drs. M. A. Blenkenhorn, Eugene B. Ferris, George L. Engel, Joseph P. Webb, and John Romano. The lop-sided blindness follows or accompanies the air bends. The flier is aware of a flickering of light, like heat waves, on one side. He is not likely to realize that also he has lost his sight in a sometimes large area on one side. This loss is a danger in flight. It is not permanent, disappearing after he descends.



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## Medicine and the War

#### 1944 War Sessions of the American College of Surgeons

NE-DAY war sessions will be held in twentytwo cities throughout the United States and Canada, in March and April, 1944, under the sponsorship of the American College of Surgeons. According to a statement issued by the College, the cancellation of the 1943 Clinical Congress makes it especially desirable to adopt this means of informing the profession concerning the developments in medicine and in the conditions affecting medical practice and hospital care which have been rapidly occurring under the pressure of wartime events. In the twelve months intervening between the 1943 and 1944 series of meetings, advancements in military medicine are keeping pace with the advancing armies of the United Nations, and the developments in civilian medical research and practice under the spur of the war emergency are proving to be equally notable.

There will be abundant material for an intensely interesting program for each of the 1944 war

meetings

As in the two previous years the College has been assured of the full cooperation of the official war services of the government. Medical service in industry and the work of committees of the medical division of the Medical Research Council will also be prominently featured on the program. The most outstanding benefit of the War Sessions has been the effecting of better mutual understanding between the various government services and the medical profession and the hospitals in gen-

Through the meetings the recruitment of medical officers for the military services has been furthered, while at the same time the necessity of maintaining

adequate medical and hospital service for the civilian sick and injured has been duly emphasized.

The War Sessions are designed for the benefit of physicians and surgeons at large, medical officers of the Army and Navy, residents, interns, medical students, and executive personnel in hospitals, and for Junior Candidates and Fellows of the American College of Surgeons.

Meetings are to take place in Des Moines, Minneapolis, Winnipeg, Chicago, Cincinnati, Detroit, Rochester, Toronto, Montreal, Springfield, Massachusetts, Philadelphia, Baltimore, Charleston, South Carolina, Jackson, Mississippi, San Antonio, Tulsa, Denver, Salt Lake City, Spokane, Vancouver, San Francisco, and Los Angeles.

The programs will include motion pictures, reports by representatives of the armed services and the U.S. Public Health Service, forums, conferences, and

round-tables, and scientific presentations.

The American College of Surgeons is also sponsoring, conjointly with the American College of Physicians and the American Medical Association, a series of wartime graduate medical meetings in various concentration centers where large numbers of medi-cal personnel are on active duty with the military forces. The meetings started in July and will continue through January. The speakers are medical officers of the Army, Navy, and Public Health Service, representatives of the Veterans' Administration, Procurement and Assignment Service, Office of Civilian Defense, War Production Board, War Manpower Commission, and other governmental war agencies, and other national authorities. The meetings are one-day sessions scheduled for twenty-two different cities.

#### Kirk Issues Statement on Penicillin

BECAUSE of numerous requests received by the Army for penicillin, Surg. Gen. Norman T. Kirk of the Army Medical Department explained on November 23 that the War Department "at no on November 23 that the War Department "at no time has either controlled penicillin or received the entire output." The Army's position with regard to penicillin supply is exactly the same as that of the Navy, U.S. Public Health Service, and the Office of Scientific Research and Development, each of which receives a monthly allocation of penicillin from the War Production Board. General Kirk also explained that the penicillin allocated to the also explained that the penicillin allocated to the Army Medical Department is intended for the treatment of military personnel and "none of it can be reallocated or released to civilians."

In November, according to the War Production Board, the Army received 56 per cent of the total supply, the Navy 18 per cent, the U.S. Public Health Service (for the treatment of Coast Guard and Merchant Marine personnel) 2 per cent, the Office of Scientific Research (for civilians) approximately 15 per cent, and the scientific staffs of drug companies the remainder for their own research.

Though production of the drug is steadily increasing, at present none of the agencies, including the military, receive as much as they need. Its distribution among military and naval personnel is deter-mined by the Army, Navy, and the Public Health Service.

Distribution of the part which is allocated to civilians is for clinical research and its assignment is determined by a committee headed by Dr. Chester S. Keefer, Evans Memorial Hospital, Boston. Since the amount of penicillin requested by civilians greatly exceeds the available supply, it has been determined by the Office of Scientific Research and Development that requests by civilians must be made through their doctors, who should communicate with Dr. Kenfor by telephone telegrams of the content of t cate with Dr. Keefer by telephone, telegram, or personal letter, giving complete details of the case so that he may have an adequate basis for his decision. -J.A.M.A.

Someone said that of all the millions of species of living organisms on the earth the two about which most had been written were man himself and—the tubercle bacillus.—F. M. Burnet, M.D., in Biological Aspects of Infectious Disease

Agar-agar, formerly obtained from Japanese and Chinese seaweed and used in the artificial cultivation of bacteria, is now a scarce material; the U.S. Bureau of Fisheries is searching for American agar-producing seaweeds.—Minnesota Medicine

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## Hospital News

## Commercial Standard Set for Hospital Sheeting for Mattress Protection\*

AT THE instance of the American Hospital Association, a joint committee of manufacturers of hospital sheeting for mattress protection and a committee of the American Hospital Association adopted a recommended commercial standard for this commodity at a meeting held on March 25, 1943. Those concerned have since accepted and approved the standard as shown herein for promulgation by the U. S. Department of Commerce through the National Bureau of Standards.

The standard became effective for new production

from December 1, 1943. ·

#### Purpose

1. The purpose of this commercial standard is to serve as a guide to producers, distributors, and users of sheeting impervious to moisture, used for the protection of hospital mattresses. It also provides a basis for clear understanding among producers, distributors, and purchasers, and for specifying and guaranteeing the quality of such sheeting.

#### Scope

2. This commercial standard covers requirements and methods of test of fabrics coated on both sides or impregnated with a suitable compound. The requirements include thickness; breaking strength; tearing strength; resistance to oil and disinfectants; resistance to sterilization, accelerated aging, cracking and moisture penetration; and burning rate. The wording of a guarantee statement by the manufacturer is included,

#### General Requirements

3. Fabric. The fabric shall be woven cotton, rayon, or any other suitable synthetic or natural fiber. A substantial close-woven selvage, not less

than 1/3 inch wide, is required.

4. Material and Workmanship.—The finished sheeting shall have a uniformly smooth surface and shall be sufficiently flexible for normal hospital use without cracking or losing its impervious character. It shall not be tacky and shall have no objectionable odor. It shall not contain materials known to have an irritating effect on the skin under the conditions of use. The color may be natural gray-white, or pigmented as desired.

5. Resistance to Mineral Oil.—When tested by pooling for two hours with liquid petrolatum U.S.P. (Par. 17), the sheeting shall show no evidence of softening, tackiness, hardening, peeling, blistering, or any other change that might affect its service-

ability

6. Resistance to Disinfectants.—When a sample of sheeting is tested by pooling for thirty minutes with 70% alcohol, 5% lysol, or 5% phenol solution (Par. 17), it shall show no evidence of softening, tackiness, hardening, peeling, blistering, or other change that might affect its serviceability. Samples that pass visual inspection shall meet the requirement for resistance to cracking (Par. 10). Slight hardening shall not be cause for rejection unless

the sample fails under the test for cracking resistance. (Par. 10).

7. Resistance to Sterilization.—A sample of the sheeting shall not be significantly softer or stiffer than the original, shall not be tacky, and shall show no other changes which might affect its serviceability after being subjected to five sterilizations in steam at 121° C. (Par. 18). Samples that pass visual inspection shall meet the requirement for resistance to cracking (Par. 10).

8. Accelerated Aging.—Sheeting which has been subjected to the compressed oxygen test (Par. 19) shall not be significantly softer or stiffer than the original, shall not be tacky, and shall show no other changes which might adversely affect its service-ability. A few small blisters that may appear during the test shall not be cause for rejection, unless they allow penetration of moisture (Par. 21). Samples

that pass visual inspection shall meet the requirement for resistance to cracking (Par. 10).

9. Water Permeability.—Samples tested in accordance with paragraph 21 shall show no evidence

of moisture penetration.

10. Resistance to Cracking.—When tested in accordance with paragraph 20, before and after the tests for resistance to disinfectants, sterilization and accelerated aging (Pars. 17, 18, and 19), the coating shall not crack at the crease, and shall show no evidence of moisture penetration (Par. 21).

11. Burning Rate.—When tested in accordance with paragraph 22, the time required for the flame to travel a distance of eight inches along the test specimen shall not be less than 75 seconds.

12. Thickness.—The thickness shall not be less

than 0.013 inch.

13. Width and Length.—Sheeting shall be 36 inches, tolerance minus 1 inch, wide and shall be furnished in rolls containing approximately 50 to 60 yards. Rolls shall contain not more than 3 pieces, and no piece shall be less than 6 yards long. The width and length shall be marked on each roll. Other commercial widths may be specified.

14. Breaking Strength (Dry and Wet).—The breaking strength of the finished sheeting shall be not less than 55 pounds in warp and 50 pounds in filling in both wet and dry tests when tested by the

grab method (Par. 16).

15. Tearing Strength.—The tearing strength shall be not less than 3.5 pounds in warp and 3.5 pounds filling when tested by the trapezoid method (Par. 23). If the breaking strength of the sheeting is higher than 55 pounds in both the warp and filling, a tolerance of minus 0.4 pound in tearing strength shall be allowed for each 5 pounds' breaking strength above the minimum of 55 pounds, except that the tearing strength shall not be below 2.0 pounds.

#### Methods of Test

16. Breaking Strength—Grab Method (Dry and Wet).—Breaking-strength tests shall be conducted as described in the latest edition of Woven Textile Fabrics—Testing and Reporting, Commercial Standard CS59.

17. Resistance to Mineral Oil and Disinfectants.—

[Continued on page 94]

<sup>\*</sup> Release from the U.S. Department of Commerce, National Bureau of Standards.



# of distressing symptoms in

#### CYSTITIS, PYELONEPHRITIS, PROSTATITIS, URETHRITIS

The prompt symptomatic relief provided by Pyridium is extremely gratifying to the patient suffering with distressing urinary symptoms such as painful, urgent, and frequent urination, tenesmus, and irritation of the urogenital mucosa.

Gratifying also is the confidence in the physician and his therapy which is so evident in most patients who have experienced the prompt and effective symptomatic relief provided by Pyridium.

Pyridium is convenient to administer, and may be used safely throughout the course of cystitis, pyelonephritis, prostatitis, and urethritis. The average oral dose is 2 tablets t.i.d.

More than a decade of service in properties in fections

### PYRIDIUM

Phenylaze-elpha-alpha-diamine

Pyridium is the United States Registered Trade-Mark of the Product Manufactured by the Pyridium Corporation

MERCK & CO., Inc. Manufacturing Chemists RAHWAY, N. J.

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A sample of sheeting shall be tested by pooling on it a quantity of the agent to be tested for the required length of time at room temperature, after which it is sponged thoroughly with soap and water, rinsed, and dried on a horizontal ventilated screen at room temperature. The length of time and number of periods of exposure shall be as follows:

Mineral oil: One period, 120 minutes. 70% alcohol: One period, 30 minutes.

5% phenol: Five periods, six hours each, samples to be sponged with soap and water and dried between periods.

5% lysol: Same procedure as for 5% phenol.

Samples that pass visual examination after treatment with disinfectants shall be tested for cracking

(Par. 20).

18. Sterilization.—A piece of sheeting 12 × 12 inches square shall be folded once to give a 12  $\times$  6inch rectangle and then folded at right angles to give a 6 × 6-inch square. If necessary to prevent unfolding during sterilization, a loosely fitting clip or band, or a light weight, may be used. The folded sample shall then be sterilized for 20 minutes at 121 C. in pure, saturated steam, after which it shall be scrubbed thoroughly with soap, water, and a soft brush or sponge to remove any wax, gloom, or finishing materials. Folded as before, it shall then be subjected to four additional sterilizations of 20 minutes each at 121 C. The sheeting shall be removed from the sterilizer and exposed to the air for at least 20 minutes between each two steriliza-After the last sterilization, the sheeting shall be allowed to stand in air for at least 2 hours before examination. Slight surface adhesion, immediately upon removal from the sterilizer, that separates without damage to the coating, shall not be cause for rejection. Samples that pass visual examination shall be tested for cracking (Par. 20).

19. Accelerated Aging.—A specimen shall be enclosed in an oxygen bomb filled with oxygen under a total pressure of 300 = 10 pounds per square inch, and held at a temperature 69 to 71 C. in accordance with method described in Federal Specification ZZ-R-601a, for eight days. Samples that pass visual examination shall be tested for cracking

(Par. 20).

Cracking Resistance.—A piece of sheeting at least 6 inches square shall be folded double and placed on a smooth, hard, flat surface. The folded edge is then rolled 10 times (5 times in each direction) along its full length with a metal roller approximately 1 inch in diameter, under a pressure of approximately 5 pounds.

21. Moisture Penetration.—A sample at least 6 inches square shall be clamped in a suitable device and a circular area four inches in diameter subjected to a hydrostatic pressure of 20 inches of water for 60 minutes. Three samples shall be tested, one taken from the middle section of the sheeting and one near each selvage. Creased samples (Par. 10) shall be so placed that the crease is on a diameter of the circle of fabric under test, and the pressure is directed against the surface of the sheeting that was on the inside of the fold. There shall be no evidence of moisture penetration or dampness on the dry side of the sheeting. See 21a, alternate method.

21a. (Alternate method). Hydrostatic pressure of 25 pounds per square inch shall be applied over an area of 1 square inch for 5 minutes, the test to

be conducted in any convenient way.

22. Burning Rate.—A sample of sheeting 15 inches long and 23/4 inches wide is held in a horizontal position by metal clamps spaced two inches apart, which grip the sample along its lengthwise edges. At a distance of 3½ inches from one end, a pencil line is drawn perpendicular to the lengthwise direction of the specimen. Eight inches from this line, another pencil line is drawn parallel to it. One end of the 15-inch strip is then ignited and the time required for the flame to travel the eight-inch distance between the two parallel lines on the sample is observed.

TearingStrength.—Trapezoid method,

A.S.T.M. Designation D39-39.

#### Guarantee

24. It is recommended that sheeting manufactured in accordance with this commercial standard shall be guaranteed by the manufacturer by the following statement appearing on labels, invoices, contracts, etc:

"This hospital sheeting for mattress protection is guaranteed by (manufacturer) to comply with all the requirements of CS114-43, as issued by the National Bureau of Standards."†

† While the above is the complete standard, it is but an excerpt from a pamphlet entitled "Hospital Sheeting for Mattress Protection, CS114-43," to be issued by the Department of Commerce. This pamphlet, which includes a list of acceptors, brief history of the project, membership of the standing committee, etc., will be available from the Superintendent of Documents, Washington, D.C., as soon after the issuance of the mimeographed edition as is practicable.

#### **Improvements**

Hospital equipment valued at \$10,000, a gift to the United States Naval Hospital in St. Albans, Queens, from the National Council of Jewish Women, was formally received on October 29 by Capt. L. L. Pratt, commandant of the hospital. Mrs. Maurice L. Goldman, of San Francisco, president of the council, made the presentation.

The new equipment, which includes a radio call system, a superficial therapy x-ray machine, three diathermy units, and three ultraviolet ray lamps, was purchased through contributions from the 215

national council sections.\*

Congressman William B. Barry, of Queens County has been advised by the Navy Department that the Secretary of the Navy has approved a project for construction of a crews' library and occupational therapy building at the Naval Hospital, St. Albans, in the amount of \$75,000.\*

Lanham Act grants totaling approximately \$72,115 to increase facilities at Syracuse Memorial Hospital from 271 to 327 beds have received the

approval of President Roosevelt.
Word of the presidential okay was received by
John M. Gallagher, regional director of the Federal Works Agency, from Maj.-Gen. Philip B. Fleming.

Federal Works Administrator.

Miss Mary E. Jenkins, president of the board of trustees of Memorial Hospital, and Miss Miriam Curtis, superintendent, said work on the additional

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# two short cuts in URINALYSIS

# Galatest

(DRY REAGENT FOR URINE SUGAR)

Time involved - 30 seconds!

# Acetone Test

Time involved - one minute!

Acetone Test (Denco) and its companion product Galatest (dry reagent for urine sugar) simplify "routine" urinalysis.

Acetone Test (Denco) detects presence or absence of acetone in urine in one minute. Color reaction is identical to that found in the violet ring tests. Trace of acetone turns the powder light lavender—larger amounts to dark purple.

#### THE SAME SIMPLE TECHNIQUE FOR BOTH TESTS

I. A little powder 2. A little urine

Color reaction instantly



A carrying case containing one vial of Acetone Test (Denco) and one vial of Galatest is now available. This is very convenient for the medical bag or for the diabetic patient. The case also contains a medicine dropper and a Galatest color chart. The handy Lit or refills of Acetone Test (Denco) and Galatest are obtainable at all prescription pharmacies and surgical supply houses.

Accepted for advertising in the Journal of the A. M. A.

Write for descriptive literature to

#### THE DENVER CHEMICAL MFG. COMPANY

163 Varick Street, New York 13, N.Y.

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units will be started as soon as possible with hopes of con pleting the project early next year.

The full cost allotment will be for construction and equipping a one-story addition at the north end of the patients' building to provide storage space; conversion of the solarium on the roof of the administration building to provide 20 children's beds, and conversion of the east solaria on the fourth to ninth floors of the patients' building into six-bed wards to provide 36 adult beds.

Miss Curtis said that, because the construction work will be mainly additions to present facilities, very few vital war materials will be used, a fact

which will expedite priority needs.

The work of closing in porches and roofs to provide additional bed space needed for the increased number of cases will take about four months. Miss Curtis estimated.

This is the second Lanham Act grant for increasing Syracuse hospital facilities, New Syracuse General

Hospital having received a similar grant.\*

Construction of a second floor between the ceiling and floor of the Albany Hospital nurses' gymnasium and dining room was started in November, Dr.

Thomas Hale, Jr., medical director, announced.

The \$32,000 government financed project will create additional locker and rest-room space for students and staff nurses and members of the Nurse Cadet Corps. The first floor will continue to be

used as a dining room and gymnasium.\*

The following item was clipped from the Rock-

away Beach Wave:

"Plastic surgery is being applied to the operating rooms of the Rockaway Beach Hospital, in line with the modernization program recently announced by Nathan Boriskin, it was stated by John L. Farrell, chairman of the 1943 Maintenance and Improvement Campaign.

"Streamlining of this section of the institution was shown by the removal of the ancient skylight in operating room. Through the old skylight the sun poured down its rays, to the discomfiture of surgeons, nurses, and interns. A special ceiling has replaced the obsolete skylight, insuring absolute

sterilization for operating purposes.

"In the minor operating room, where tonsillectomies and similar operations are performed, the walls have been replastered and a new ceiling erected. Plans for the installation of a stainless floor in the minor operating room are under way.

"Outside windows are being reputtied and the sills repainted, so that a freshened appearance will

greet the eye.
"Authorization has been given by the directors for the purchase of up-to-date x-ray equipment, replacing the obsolete equipment now in use. This will require the relocation of the x-ray, physiotherapy, and prenatal service departments. The over-all expenditure for this essential change, it is estimated, will exceed \$10,000. Meanwhile many alterations which will materially assist the personnel in the performance of their service to patients are under wav."

The new 60-bed addition to the DeGraff Memorial Hospital in Tonawanda is scheduled to be completed in December. The entire cost of the new addition and equipment is being paid by the Federal Works Agency of the U.S. Government. The addition will remain the property of the U.S. Government for the duration of the war and for a short period there-

Excavation was started in October for the \$486,000 addition to Deaconess Hospital in Buffalo. scheduled for completion by next July 1. The twostory structure will house 144 beds, a nursery with 60 bassinettes, additional laboratories, and expanded kitchen and dining room space. Facilities for the Nurses' Training School will include a dietetic laboratory, basic science laboratory, and lecture and assembly rooms. The addition will cover a ground area of 332 by 94 feet and will be constructed with federal funds.

New x-ray equipment for Jamestown General Hospital, ordered months ago, probably will be installed by the first of the year, Adolph Beckdahl, chairman, told the Health and Hospital Board after revealing receipt of a WPB promise of the necessary priority.

#### At the Helm

Maj. Nicholas R. Locascio, of Yonkers, chief of medical service and post psychiatrist at the station hospital at Fort Hancock, New Jersey, for the last two and one-half years, has been appointed commanding officer of a psychiatric station hospital at Stormville, New York.

Major Locascio will be the first commanding

officer of his new station, the Green Haven Hospital, recently taken over from New York State by the

Army.

During his period of service at Sandy Hook, Major Locascio, with Col. John P. Beeson, former hospital commanding officer, worked out plans for enlarging and modernizing what formerly was a barracks building into what is now the auxiliary hospital.

The Yonkers physician also played a large part in other improvements in hospital facilities at Fort Hancock and was plans and training officer for the hospital complement.

One of the major jobs assigned him while he was at Fort Hancock was the training of a large number

of Army nurses.

A graduate of Fordham University and Georgetown University Medical School in 1927 and 1931, respectively, Major Locascio in civilian life was associated with hearitals in New York College. ciated with hospitals in New York City in departments of psychiatry.

He had been a reserve officer since 1931, prior to

being placed on active duty.\*

Dr. Malcolm R. Blakeslee, of Shortsville has been re-elected president of the F. F. Thomson Hospital staff physicians. Dr. Frederick C. McClellan con-

[Continued on page 98]



Fast administration
—a dose is delivered in 30 seconds



Less disagreeable garlic odor following injection



Well-tolerated — fewer gastre-intestinal upsets — full doses can often be given to patients intolerant to the arsphenamines



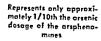
No waiting for preparation of the solution—it is immediately soluble in the ampoule

# At Your Service MAPHARSEN

When arsphenamines are taken into the body, it is believed that approximately one-tenth of the amount administered is converted into arsenoxide. To this oxidized product, rather than to arsphenamines themselves, investigators attribute the spirocheticidal action of these drugs. MAPHARSEN\* is meta-amino-para-hydroxyphenyl arsine oxide (arsenoxide) hydrochloride which offers an effective antisyphilitic therapy...a form that causes rapid disappearance of spirochetes and prompt healing of lesions...and one that has facilitated development of the highly-effective, modern types of antisyphilitic treatment.

\*Trade-mark Reg. U. S. Pat. Off.

You can now readily obtain supplies of Mapharsen Ampoules for use in your practice. Increased manufacturing facilities have made it possible for us to materially increase our output, and to maintain more adequate supplies in drug stores throughout the country.





Parke, Davis & Company, Detroit, Michigan

[Continued from page 96]

tinues as vice-president and Dr. E. C. Merrill was named secretary and treasurer.\*

Dr. Ina C. Hall, who has been superintendent of the Brooks Memorial Hospital in Dunkirk since May of this year, resigned on December 1.\*

Frederick G. Bascom was re-elected president of the Glens Falls Hospital Board of Directors at the annual meeting on November 1. Other officers, all re-elected, are: William H. Barber, vice-president; Frederick B. Richards, secretary-treasurer; Miss Flora E. Bent, clerk.

Members re-elected to the board were H. F. Bullard, Dr. W. H. Ordway, Mr. Richards, Harry

H. Singleton, and Miss Bertha Wilmarth.\*

Due to ill health, Sister Julienna of the staff of St. Anthony's Hospital in Queens, has been relieved of her duties as Superintendent, and Sister Alphonsia has been appointed Superintendent in her stead. We wish her every success. Sister Bonaventure has been acting superintendent.

Dr. Carl S. Tomkins has been elected president of the Batavia Hospital staff. He succeeds Dr. L. F. Quinlan.\*

Dr. Ansell W. Derrick, of Charlotteville, Virginia, has assumed his duties as director of the city laboratory in Kingston, to fill the vacancy caused by the resignation of Dr. J. S. Taylor, who is now pathologist at Vassar Brothers Hospital, Poughkeepsic.

Before going to Kingston, Dr. Derrick was associate professor of pathology at the University of Virginia in Charlotteville. He received his medical degree from the Medical School of the University of Virginia.

He has made a special study of cancer and allied diseases, and will carry on the laboratory program which was inaugurated with great success by Dr. Taylor.\*

Dr. Harry A. LaBurt, for twenty years in the New York State Department of Mental Hygiene, has been named superintendent of Creedmoor State Hospital in Queens. Dr. LaBurt has been at Creedmoor as acting superintendent since shortly after Dr. George Mills resigned from the post last spring while the institution was under investigation.

Dr. LaBurt, who entered the State Department as a deputy medical director in 1924 after graduating from the University of Buffalo Medical School, was most recently superintendent of the Harlem Valley

State Hospital.

Dr. Isadore Rees, of New York City, assistant superintendent of the Bronx Hospital and formerly national chairman of the B'nai B'rith committee on scouting, has been appointed executive secretary of the Leo N. Levi Memorial Hospital in Hot Springs, Arkansas.

Dr. Vladimir Podryski, member of the medical staff of the Veterans' Facility in Bath for more than a year, has left for a new post in the Bronx Veterans' Hospital.\*

Dr. James V. Murphy has been appointed child welfare and parochial school physician in Niagam Falls, to succeed Dr. Francis F. Talbot, who re-signed, on October 16.\*

Dr. William R. Carson, for the past twelve years associated with the medical staff at the State Hospital, Ogdensburg, recently began his duties in charge of x-ray work at Potsdam Hospital, succeeding the late Dr. Robert J. Reynolds.

Dr. Carson, following his graduation from Tufts Medical College, Boston, interned for two years in Brooklyn and later accepted a hospital residency in Boston. He came from Boston twelve years ago to Ogdensburg, where he served at the State Hospital and was also associated with the Hepburn Hospital

Mrs. Jennie Carson, wife of Dr. Carson, is also a physician, serving in Kings County Hospital, She plans to come to Potsdam with her Brooklyn.

husband during the coming year.\*

Edward S. Graney, steward of Binghamton State Hospital, completed on November 2 fifty years of service at the hospital where he started as a stenographer in 1893. He became bookkeeper in 1898 and steward in 1909. During this long term of service Mr. Graney has handled the business affairs and the farm of the hospital. He is a member of the Committee of Stewards Conferences and also of the Committee on Statistics and Forms of the New York State Department of Mental Hygiene.

Dr. Stephen Major, formerly of Boston, has been appointed to the staff of Binghamton State Hospital. Dr. Major was graduated from the Royal University of Milan, Italy, in 1931, and has just completed a residency in Boston City Hospital.

Appointment of Dr. Newton J. T. Bigelow, superintendent of Edgewood State Hospital, Suffolk County, as assistant state commissioner of mental hygiene was announced in November by Dr. Frederick MacCurdy, commissioner.

Dr. Bigelow succeeds Dr. H. Beckett Lang, who is on leave of absence with the Navy, in which he is a

lieutenant-commander.

The new assistant commissioner, a native of Canada, was first assistant physician at Pilgrim State Hospital and director of clinical psychiatry at Utica State Hospital at Edgewood.\*

Dr. Edward I. Salisbury, of Flower Hill, has been appointed medical director of the United Fruit Co.\*

[Continued on page 100]

# injectable vitamin B complex!

THE FIVE IMPORTANT FACTORS
IN STABLE

# Instantly Soluble FORM

As a result of chemical investigations still further progress in vitamin therapy has been made. Now, in one ampul, there are available the following synthetic factors:

Supplied in boxes of 3 and 10 ampuls.

Dissolve in 2 cc. of sterile distilled water.

If increased vitamin B, is desired, use as solvent any Betaxin parenteral solution (available in 10 cc. vials containing in each 1 cc. either 10 mg., or 25 mg., or 50 mg., or 100 mg.).

Betasynplex may be administered

subcutaneously

intramuscularly

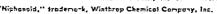
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[Continued from page 981

#### Newsy Notes

Mrs. T. J. Grimaldi, nurse at Nassau Hospital, in Mineola, and supervisor of clinical instruction for members of the Volunteer Male Attendants Association, was presented with a scroll by the twenty-one members of the first graduating class of the association, who finished their work the last week in October. The scroll expressed the gratitude of class members for her work in the male attendants' school.

The classes are held at Nassau Hospital. They are open to any volunteer who wishes to give his services in the various hospitals. The members of the first class have already served in the North Country Community, Nassau, Mercy, South Shore Communities, and the Meadowbrook Hospitals.

There is a great need for volunteers for this work.\*

Dr. Katherine Whitin Swift and Dr. Thomas Pattison Almy, both of the New York Hospital in New York City, were married on November 12.\*

A ten-car hospital train, the first of many being built in the United States for use in combat zones overseas, was on exhibition in the Pennsylvania Railroad station in Jersey City, New Jersey, on November 23.

The train will go to Philadelphia and other cities on the way to the California-Arizona maneuver area, where it will be used temporarily for training pur-

Nown as "The Third Hospital Train," the train is a complete unit in itself, carrying, in addition to the most modern surgical equipment, generators and boilers to supply heat, electricity, hot water, ventilation, and refrigeration. Each car is equipped

When these trains reach combat areas they will replace the foreign-made cars used to carry wounded American soldiers from the evacuation points just behind the battle lines to general hospitals. To do this the hospital train will move up to within twenty-five miles of the actual fighting zone.

with fluorescent lighting.

Built specifically for overseas duty, where the railroads have many sharp turns, narrow bridges, low tunnels, and bad roadbeds, the hospital cars are considerably smaller than the average American railroad cars. They are only forty feet long, about half the length of Pullmans, and several feet nar-

The ten steel cars consist of six ward cars, each capable of accommodating sixteen bed patients or a larger number of sitting patients, a kitchen car, two personnel cars for officers and enlisted men, and the utilities car where the generators and boilers are housed. The train is painted the familiar Army olive drab and hospital and Red Cross markings are displayed on the exterior of each car.\*

With plans for a postwar expansion program almost complete, Mercy Hospital in Buffalo has opened an appeal for funds to carry out the project. The appeal is being made in letter form to members of the nurses' alumnae, friends, and former patients of the institution.\*

The Albany Times-Union recently published a series of six articles on "Hospital Problems Today," in which were discussed the critical nurse shortage, the special-nurse shortage, volunteer aides, the shortage of general personnel and supplies, and hospital finances. These articles attracted much attention and the Times-Union published a number of letters received in reply to them.

Another group of boys and girls from the Utica area will go to the Shriners' hospital for crippled children in Springfield, Massachusetts, as a result of a clinic conducted on November 6.

Though the clinic was an entrance examination for 10 patients, it constituted graduation exercises for some who had outgrown all symptoms of paralysis or limb injuries. Others temporarily released will return for further treatment.

The children came from Syracuse, Utica, Rome, Oncida, Ilion, Frankfort, Mohawk, Sauquoit, Norwich, Camden, Westmoreland, and Boonville. In spite of their disabilities, they were a cheerful lot, eating cookies and lollipops while they waited to be called to the examination room. There Dr. Garry deN. Hough, chief surgeon of the Springfield institution, examined the afflicted legs and arms, rapidly dictating symptoms and recommendations to his secretary between scraps of leisurely small talk with his juvenile patients.—Utica Observer-Dispatch

The Samaritan Hospital in Troy is given a legacy of \$325,000 for the maintenance of the James A. Eddy Memorial Foundation at that institution under the will of Mrs. Elizabeth H. S. Eddy, who died on October 30.

The James A. Eddy Memorial Foundation was established at the Samaritan Hospital in 1928 by Mrs. Eddy, for the care of persons suffering from incurable disease or from what may at the time be deemed to be incurable disease; of persons suffering from chronic though curable disease who are permanently physically incapacitated but who still need medical or surgical treatment.\*

Hundreds of Brooklyn and Long Island high school students recently visited hospitals in the area as part of the current recruiting campaign of the Nursing Council for War Service on Long Island. Open-house week was observed by twentythree hospitals.

Tickets were distributed to 132 high schools for the campaign, which was held to focus the interest of high school seniors on the immediate war contribution they can make by becoming student nurses.\*

A campaign to raise funds to purchase five thousand potted plants to be placed at the bedsides of hospitalized service men and women and five thousand Christmas trees for as many wards in military hospitals in the New York area was begun on November 10 by the Metropolitan Area Hospital [Continued on page 102]

# "How much do you smoke?"

# is only part of the question!

Far more important than "How many cigarettes do you smoke?" may be the question, "How irritating is your cigarette?"

RECOGNIZED LABORATORY TESTS\*
SHOWED THAT THE IRRITANT QUALITY
IN THE SMOKE OF FOUR OTHER LEADING
BRANDS AVERAGED MORE THAN THREE
TIMES THE STRIKINGLY CONTRASTED
PHILIP MORRIS.

The possibility of irritation from smoking can be minimized by suggesting a change to PHILIP MORRIS.

# PHILIP MORRIS

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Facts from: Proc. Soc. Exp. Biol. & Hed., 1934, 32, 241-245; N. 1. State Iral. of Med. Vol. 35, No. 11,590; Arch. of Oldarynspiog. Mar. 1936, Vol. 23, No. 3,306

TO THE PHYSICIAN WHO SMOKES A PIPE: We suggest an unusually fine new blend-Country Doctor Pipe Mixture. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

[Continued from page 100]

Service's Committee, which has its headquarters in the 13th Regiment Armory, New York Guard, Brooklyn.\*

South Nassau Communities Hospital, in Rockville Centre, celebrated its fifteenth anniversary on November 20, with a reception and tea at which members of the official staff, board of directors and leaders of the hospital auxiliaries greeted visitors and friends.\*

A blood bank containing sufficient plasma to meet any emergency and to be made available to all those living and working in the community, is being planned for the North Country Community Hospital in Glen Cove, P. Erskine Wood, president of the board of directors of the hospital, announced. It is hoped to have a bank of 50 units.\*

Plans are under way for a 30-room maternity wing for the Champlain Valley Hospital in Platts-Generous contributions have been promised toward the project, which will cost an estimated \$150,000. Dr. E. W. Sartwell, of Peru, recently contributed \$200.\*

The national award of the National Hospital Association for the best educational program of a hospital in a city of 100,000 or more population in the United States was presented to Wyckoff Heights Hospital in Brooklyn on November 16. Wyckoff Heights Hospital won the award at the recent convention of the National Hospital Association.

The award is a plaque, suitably inscribed. Herman Ringe, president of the hospital board, and Louis Schenkweiler, superintendent of the hospital, ac-

cepted the award.

The presentation was made by John H. Hayes, trustee of the National Hospital Association. Hayes also spoke on behalf of the Greater New York Hospital Association, of which he is president. He is superintendent of Lenox Hill Hospital, Man-The New York State Hospital Association was represented by John H. Olsen, chairman of its public education committee. He is superintendent of Richmond Memorial Hospital, Staten Island.\*

The White Plains Hospital Association commem-

orated the fiftieth anniversary of the granting of its charter on Sunday, November 21.

Alexander C. Nagle, president of the board of governors of the Hospital Association, with the Hospital Association, with the other governors was at home to the residents of the community which the Hospital serves, from three to six o'clock at the

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[Continued on page 104]

### EFFECTIVE THERAPY

IN

## Otitis Media

Requires Analgesia

Bacteriostasis, and

Dehydration of the Tissues.

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.....М.

......

[Continued from page 100]

Service's Committee, which has its headquarters in the 13th Regiment Armory, New York Guard, Brooklyn.\*

South Nassau Communities Hospital, in Rockville Centre, celebrated its fifteenth anniversary on November 20, with a reception and tea at which members of the official staff, board of directors and leaders of the hospital auxiliaries greeted visitors and friends.

A blood bank containing sufficient plasma to meet any emergency and to be made available to all those living and working in the community, is being planned for the North Country Community Hospital in Glen Cove, P. Erskine Wood, president of the board of directors of the hospital, announced. It is hoped to have a bank of 50 units.\*

Plans are under way for a 30-room maternity wing for the Champlain Valley Hospital in Platts-Generous contributions have been promised toward the project, which will cost an estimated \$150,000. Dr. E. W. Sartwell, of Peru, recently contributed \$200.\*

The national award of the National Hospital Association for the best educational program of a hospital in a city of 100,000 or more population in the United States was presented to Wyckoff Heights Hospital in Brooklyn on November 16. Wyckoff Heights Hospital won the award at the recent convention of the National Hospital Association.

The award is a plaque, suitably inscribed. Herman Ringe, president of the hospital board, and Louis Schenkweiler, superintendent of the hospital, ac-

cepted the award.

The presentation was made by John H. Hayes, trustee of the National Hospital Association. Hayes also spoke on behalf of the Greater New York Hospital Association, of which he is president. is superintendent of Lenox Hill Hospital, Manhattan. The New York State Hospital Association was represented by John H. Olsen, chairman of its public education committee. He is superintendent of Richmond Memorial Hospital, Staten Island \*

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Sacroiliac Sprain or other Back Injury?

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[Continued from page 102]

The State has leased a group of three connecting buildings at Pilgrim State Hospital, in Brentwood, to the Army to be used during the period of the war as a general hospital for the treatment of soldiers. The normal capacity of the three buildings is 1.528 but it is believed that several hundred additional patients might be accommodated therein.

Human milk "banks" are to be established at the Arnot-Ogden and St. Joseph's Hospitals in Elmira.

The contribution of human milk to the banks is in no way inferior to the donation of blood, medical men declared. The process of storing frozen human milk is fundamentally the same as the frozen stor-

age of any food.

The availability of breast milk in Elmira hospitals has, in the past, determined whether some premature frail newborns have survived. Heretofore, when the mother has been unable to provide milk for a critical case, the odds have been against any available supply from other mothers. On the other hand, there are times in the maternity wards when a superabundance of milk is drawn from mothers, only to be discarded because there are no infants needing the excess at that time.

From now on there will be no discarding of precious breast milk. It will be stored perfectly in a frozen state to be on hand when the need occurs.

Elmira pediatricians were assisted by Garth A. Shoemaker, manager of the Hygiea Refrigerating and Ice Cream Co., in arranging for the milk storage.—Elmira Advertiser

The White Plains Hospital and Dr. Edwin G. Ramsdell, its chief of staff, are principal legatees in the will of the late Clarion B. Winslow, of White Plains.

The White Plains Hospital, to which he had contributed more than \$500,000 in recent years, received 6,000 shares of stock, worth \$228,000; part of Mr. Winslow's large library; and one-third of his residuary estate.\*

Free hospital service for needy girls, regardless of creed or color, is to be established in St. Mary's Hospital under terms of the will of the late Zetta O'Connell, of Rochester.

Upon termination of trust fund commitments, the remainder of the estate is to be used to set up a

Zetta O'Connell Memorial Fund, the income from which is to be used "to provide bed or beds, or medical or surgical service and nursing care" for needy girls, of any color or creed, at St. Mary's Hospital.\*

On October 30 formal dedication ceremonies were held at Utica at Rhoads General Hospital.

Present at the ceremony were several Army officers including Maj. Gen. Thomas A. Terry, Commanding General of the Second Service Command. Senator James M. Mead, of New York, delivered the dedicatory address.\*

Physicians in Batavia recently gave a mighty boost to St. Jerome Hospital Building Fund. Bonds of \$1000 were given by Drs. Ward. B. Man-Graney, I. A. Cole, L. F. Quinlan, C. C. Koester, and Paul P. Welsh. Bonds for \$500 have been received from Drs. Frank R. Hall, S. J. Gerace, Bernard Puglisi, and Ralph Stanbury. The St. Jerome's Nurses' Alumnae sent \$200 in bonds.\*

St. Joseph's Hospital for Consumptives, in the Bronx, has changed its name to St. Joseph's Hospital for Chest Diseases.

Because of shortage of doctors and nurses due to those accepting Army and Navy service the County Department of Public Welfare is considering closing the 25-bed children's tuberculosis building at Grasslands and allocating a number of beds for children in one of the wards of the adult tuberculosis wing, it was reported.

The announcement did not come from Welfare Commissioner Ruth Taylor but from Dr. Robert E. Plunkett, State General Superintendent of Tuberculosis Hospitals, reporting on a recent inspec-

tion of the Grasslands institutions.

The children's tuberculosis building at Grasslands, "Sunshine Cottage," was opened in September, 1931, and has long been considered as providing one of the most advanced methods of treating of tuber-culosis among children. Dr. William G. Childress is the physician in charge of both adult and children's tuberculosis wards.

The inspection report shows that during 1942 there were 578 adult patients and 23 children treated in the tuberculosis division of Grasslands.—North

Tarrytown Ledger

### SOCIAL HYGIENE DAY

According to Social Hygiene News, monthly publication of the American Social Hygiene Association, "Social Hygiene Day" for 1944 will be observed on February 2.

The eradication of venereal disease and the promotion of social protection services will be stressed in the programs to be given throughout the country.



The potentiation of the central action of phenobathical by the belladonna alkaloids (Friedberg, Arch f. exp P & P. CLX, 276) renders possible attainment of desired effects with relatively small doses, thus avoiding hang over 'and other unpleasant side actions. In contrast to galenical preparations of belladonna, such as the tincture, Belbarb has always the same proportion of the alkaloids.

Indicationa: Neuroses, migraine, functional digestive and circulatory disturbances, vomiting of pregnancy, menopausal disturbances, hypertension, etc.



Formule: Each tablet contains 1/4 grain phenobarbital and the three chief alkaloids, equivalent approximately to 9 minims of tincture of belladonna.

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Just 100 years ago, according to Alden E. Calkins in the Saturday Home Journal of the Journal-Ameri-can, the great-great-grandfather of Ginger Rogers loaded his two flint-lock pistols, packed his saddle-bags with little white pills and set out to stamp the fevers and chills then strangling frontier life in the Louisiana Purchase area.

In the face of bitter condemnation by his colleagues who insisted that the drug was dangerous and that only bleeding and purging cured malaria, Dr. John Sappington had the foresight and courage

to prescribe quinine
"Few persons," says the author, "even in the now
healthy Mississippi and Missouri river valleys where he worked his magic, know what Doc Sappington did when he gave quinine in steady but small doses. This rank heresay outlived its sponsor for most of the last century, but today medical science knows that quinine does the job, and smaller doses of it are more

effective than large ones. Sappington's conservation of a drug that was as scarce 100 years ago as it is now (with no thanks to the Japs) helps more of our fighters get their share of quinine than if that frontier physician had never lived and fought for his principles. .

"Adding high pressure salesmanship to independence, this pioneer in medical life, liberty and pursuit of happiness even had the frontier village

made up of licorice, myrrh, sassafras, and a grain of quinine.



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they come'-meaning our businesslike and ever

popular young traveling salesmen." L. H. R., New York Times Magazine



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Fifteen thousand tons of steel are used in this country for manufacturing auto license plates, reports a Pennsylvania "economist." In his State, alone, the 1,100 tons used for this purpose is sufficient to equip 220,000 soldiers with rifles.

So to save all this metal, the man-Harry M. Parmley, suggests the elimination of plates entirely. As a substitute, a permanent identification number can be painted or otherwise placed on the front or rear of a truck or pleasure car-practically what the railroad companies have been doing on rolling stock for years.

Stickers on the windshield could indicate that State license fees have been paid. Such stickers are now used in fifteen States to permit the legal retention of old license plates.

Now let someone figure out how to salvage the "tin" that is used to make the vehicle that carries the license plate.

#### BIOTIN FOR GROWTH

The most recent of the vitamin B factors to "attain its majority" is Biotin. It is now established that this factor stimulates growth.

But the most remarkable thing about it is that this vitamin can be stored up in pickled foods. As it is easily extracted from foods by acids, vinegar which is used in pickling acts as the medium that extracts the Biotin. In Europe where peasants pickle both animal and vegetable products on a large scale, they get their Biotin even when they must rely almost entirely on pickled foods.

Richest sources of the vitamin factor are: kidneys, brewer's yeast, soybeans, spinach and toma-It is found in the body tissues and in excretions.

Rats in a test, were fed on raw egg-white with the result that they died, for the avidin content of eggwhite checks growth and prevents the biotin from doing its work.



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### SUBSTITUTES MAKING GOOD

A dramatic display of products created to save precious materials by conservation, substitution, and simplification has been staged in Washington. Over a thousand articles exhibited show streamlined designs that save thousands of tons of steel, copper, aluminum, rubber, and such vital war materials.

Most of the articles were created to meet strictly military needs, but many of them will interest the noncombatant civilian. Some have been made especially for civilians to release essential material to

the armed forces.

Included among the things shown were—a crib made entirely of wood (instead of metal) with springs using only half the normal amount of steel. . . a door-mat or garden pad made of discarded scraps of wood . . . a series of clear glass fixtures for garden hoses with modernistic hoses in supple plastic to save rubber. . . a watertight flashlight that can be dropped into deep water and still operate. . . a whole ensemble of ceramic kitchen ware and a hot-water heater which substitutes for pre-war metal models. . steel locks and bolts coated with a durable black enamel, to save brass...a concrete bathtub...and a chemical that makes ordinary wood completely fireproof.

### THE WAR PHENOMENON

The war phenomenon is still the change in birth

In Great Britain where a declining birth rate was the most serious problem for the past three decades, a change for the better has now taken place in their fourth year of war.

Recent figures published by the Registrar General's office revealed that there were 180,691 live births in the second quarter of this year—a rate of 17.5 per 1,000 of the population as compared with 16.2 during the same period last year and an average rate of 15.7 for the preceding five years.

Population experts find little comfort in these latest statistics, however, arguing that the recent rise is due to younger marriages and to the emotional strains of a long-drawn-out war. Government authorities and other students point out that since 1923 the annual birth rate has been insufficient to maintain stationary population.

The concern in Great Britain now is how this alarming trend can be permanently arrested. It is believed that the following three points of attack are

essential:

1. Education of the public in order that motherhood may be raised to the status of an honored profession.

2. Relief from the economic burden by child allowances as advocated in the Beveridge report.

3. Better housing, nutrition, education, and programs of public health.

### COT-TAR PIX-LITHANTHRACIS 5%

Therapeutically active in exudative and chronic eczema particularly suitable in children's eczema. • Forms a flexible non-peeling

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This news parallels the issuance of a new pamphlet here by the Child Study Association of America— "When Children Ask About Sex," in which the editors have attempted in sixteen pages to bring the subject out of language obscurity through which parents have been groping, to come to the point and to convey a great deal of helpful information. (Single copies cost 20 cents, and may be obtained from the Association, 221 W. 57th Street, New York

19, N. Y.)

The pamphlet covers both sides of the matter telling too little and telling too much,-but the authors caution that the pamphlet does not supply a ready answer for ever question a child might ask about sex, or suggestions to be memorized word for

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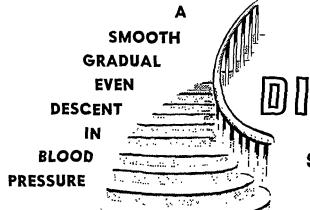
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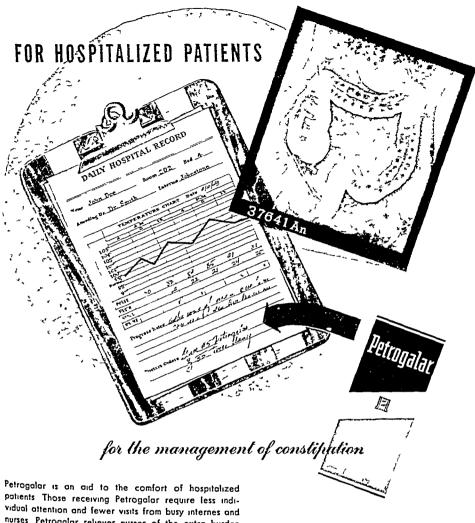
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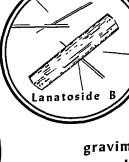
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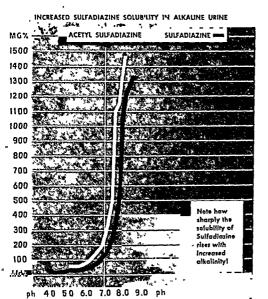
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Gilligan, Garb, Wheeler and Plummer<sup>2</sup> have found that alkali therapy sufficient to maintain the urine neutral or slightly alkaline (about 16 Gm. of sodium bicarbonate daily, unless contraindicated) was not only advisable but that renal damage and urinary tract obstruction, consequent upon precipitation of sulfadiazine and acetylated sulfadiazine, were preventable.

The wide usage of sulfadiazine, for both therapeutic and prophylactic purposes, is the best evidence of its relative lack of toxicity. Recently there has appeared a significant article by Kuhns, Nelson, Feldman and Kuhn³ who employed sulfadiazine prophylactically in more than 15,000 soldiers with not only a resultant reduced incidence of infection (meningitis) as compared with controls, but also without serious toxic effects.

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It is believed that many additional publications will appear during 1944







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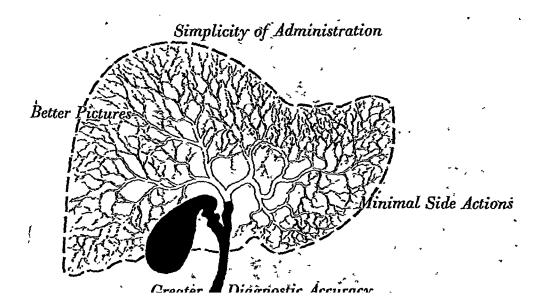
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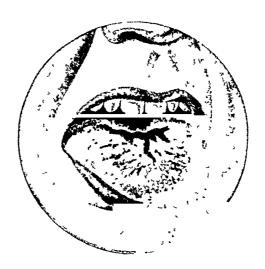
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Cause cancer, erosion, or vaginitis;

No production of irritation or discharge, vaginitis or cervicitis was found in one study group of No production of irritation or discharge, vaginitis or cervicitis was found in one study group of No production of irritation or discharge, vaginitis or cervicitis was found in one study group of No production of irritation or discharge year or over. Tampons do not block the flow. On the contrary, they actually act as a wick to draw blood ampons do not block the flow. Do tampons cause cancer, erosion, or vaginitis? No production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge, vaginitis or cervicitis was also production of irritation or discharge and irritation or discharge and irritation or discharge and irritation or discharge and irritation of irritation or discharge and irritation or discharge and

Do tampons block the flow?

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Careful and repeated observations on over instance in which harm resulted.

during menstruation failed to reveal only instance in which harm resulted. Careful and repeated observations on over 500 private patients using vided.

Careful and repeated observations on over for which harm resulted.

during menstruction failed to reveal any instance in which harm resulted. worn only at the start and end of mensituation?

In 110 young nurses (another study group), os per cent could not use tampons in the middle of the all through mensituation. Only 5 per cent could not use tampons in the middle of the all through mensituation. Do tampons irritate the delicate vaginal tissue? In 110 Young nurses (another study group), 95 per cent used tampons with satisfaction to the another study group), 95 per cent used tampons in the middle of the cauld not use tampons in the middle of the all through menstruation. Only how was excessive.

The period, and in these cases the flow was excessive.

Should tampons be worn only at the start and end of menstruation?

all through menstruation. Unly 3 per cent could no was excessive.

period, and in these cases the flow was excessive.

Definitely hese as shown phy this stady and phy unmerons investigators. Are tampons comfortable and do they help the psychological attitude toward menstruation?

The national document was know that a tampon is present in the vaccina if it is E unu au mey mely me payemuruymu armaue roware menamua fi fi is the vagina if the vagina stated.

The patient does not even know that a tampon is present in the voluntarity stated.

Inserted sufficiently deep. A large number of patients have voluntarity stated. Do tampons overcome the problem of menstrual odor?

The patient does not even know that a tampon is present in the vagina stated.

The patient does not even know that a tampon is present in the vagina stated.

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Kornely, K. J. West Jnl. Sers. Kornely, and Gyr. Vel. Sl. p. 150, Obstell and Gyr. Vel. Sl. p. 160, April 1943, condensed to Cur. Med April 1943, condensed to Cur. Med Dis. July 1943, p. 43.

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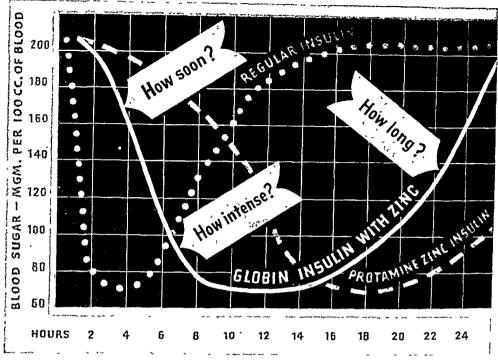
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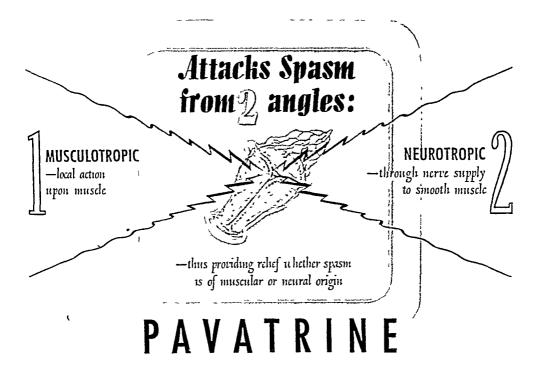
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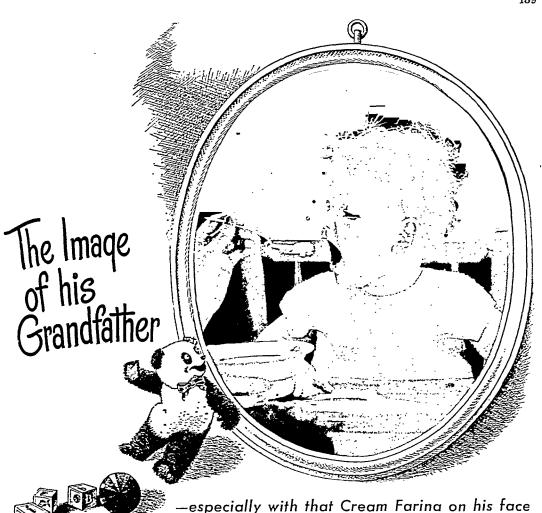
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# NEW YORK STATE JOURNAL OF MEDICINE

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# Editorial

# Evolution

American medicine is to a certain extent today following a course parallel to that of American labor or, in fact, labor in any country which, originally agricultural, has undergone industrialization. It might be well for those concerned with the formulation of the future policies of medicine and its institutions to consider this parallel.

Not so long ago the journeyman laborer was a hand-tool worker, independent, owning his own tools, working what hours he pleased, and under circumstances of great freedom and latitude of movement. But with the advent of power machinery, the picture rapidly altered. True, the hand-tool worker still continued to exist, but his numbers became smaller in comparison with machine operators. These latter did not own the machines they operated or the factories in which they worked. Wages, hours, and working conditions were none of the best for many years.

None can fail to see the similar evolution of medicine in the same period of time. The rise of the hospitals and the medical centers, made possible largely by the profits of intensive industrialization of the nation and the research aided by large "foundations" whose capital resources were derived from the same source, has to a certain extent accomplished the partial industrialization of a large part of the medical profession, in that it works in hospitals it does not own or control, and with tools, a growing number of which may be likened to the machine tools of industry: the cyclotron and the electron

microscope, for example. This decade is witnessing the enormous expansion of the medical services of an increasing number of large industrial establishments as well as of smaller plants. The number of physicians working whole time in these services is on the increase. The tendency to concentrate more and more of medical practice about the hospitals is well established. It is not a matter for wonder than an intensified and expanded industrialization of the nation should thus create a partially industrialized medical profession.

There arise in consequence many problems, economic and social, which medicine is sometimes reluctant, at other times ill equipped to face. What shall be the status of the physician-employee? Is he a laborer for hire? Or a professional man for rent? Where does he belong in the labor-management setup? In hospitals, most physicianemployees are not members of the medical staffs. Where do they stand in industrial medical services? Are they independent contractors?

Certainly such physician-employees in industrial establishments serve both management and labor and can be wholly independent of neither one, but must not, on the other hand, become a dependent of either. Can such a middle status endure, considering the quasi-judicial function implied in the maintenance of such a nice balance?

How shall conditions of employment be safeguarded? What is the effective collective bargaining power of medical societies, either local, state, or national, with respect to physician-employee contracts with industrial or hospital employers?

These and many more are some of the problems and questions arising out of the increasing industrialization of medical practice which were unknown to the journeyman hand-tool workers of the middle eighties or the private practitioner of medicine of the recent past. Even now, with many of these complicated relationships of medicine with industry and the hospitals still unsolved, new relationships with government are being created. E.M.I.C. is just getting into operation, with the several state departments of health attempting to interpret and to administer in their jurisdictions the federal regulations governing this type of medical service, in consultation with the state medical societies. Here is federal law and federal money covering maternity and infant care for certain classes of soldiers' dependents, operating through state agencies and creating between the private practitioner, the hospital, and the state department of health a new relationship of somewhat extraordinary complexity. A novel feature of this type of medical service is the arbitrarily fixed fee for services set by the Children's Bureau,

which is binding upon both the donor and the recipient of the services by regulations of the Bureau which have the force and effect of law.

It is apparent from the trend of proposed legislation, as well as from a study of existing laws and regulations, that in the opinion of many persons even the present industrialization of medical practice does not go far They would have it completely federalized. This tendency is in line with the undoubted trend toward the breakdown of local and state autonomy in favor of federal control. There is nothing novel about it, except that it has been relatively untried in this country. War, however, tends to hasten the ordinarily slow processes of evolution. Medicine itself, acting in an advisory capacity to the American people, can only present to them its wealth of experience with the philosophy and practice of the art and science which it has developed.

What the people will have to say concerning the federalization of the profession or of the nation's economy seems yet to be anybody's guess. What the people want they can have by the orderly processes of law and elections guaranteed by the Constitution.

# Workmen's Compensation

In a release to the newspapers on December 20, 1943, Dr. Thomas A. McGoldrick, President of the Medical Society of the State of New York, had this to say:

"In view of the allegations of fee-splitting and 'kickbacks' to doctors in Workmen's Compensation work made in the course of the Moreland investigation, I wish to present a few facts to the public.

"First, I wish to state that the Medical Society of the State of New York strongly disapproves and always has disapproved of fee-splitting and so-called 'kickbacks' to doctors engaged in Workmen's Compensation work or in any other form of medical care. Such practices are contrary to the ethics of the profession.

"The Medical Society of the State of New York has been accused of taking no action on the allegations made against certain doctors.

Such is not the case. A decision of the Attorney General, delivered early this year, revealed that state and county medical societies had the power to summon offenders, put them under oath, and obtain testimony. Prior to this time the Society was advised that it did not possess this power. As a result of the more recent decision, the medical societies concerned have been conducting hearings in the case of accused physicians in accordance with the provisions of the Compensation Law and the code of ethics of the American Medical Association and the Medical Society of the State of New York. Already approximately 500 cases have been tried by the medical societies. Every remaining case will be investigated and any person found guilty will be justly punished.

"No group or individual is more interested in preventing and eliminating unethical and unfair activities in the practice of medicine than the State Medical Society and its constituent county medical societies. The public may rest assured that every effort will be exerted to eradicate dishonest and reprehensible medical practices. The majority of the medical profession is in accord with the high ethical principles to which it is committed.

"At the proper time the Medical Society of the State of New York will make recommendations for amendments to the Workmen's Compensation and Education laws, which it hopes will facilitate the detection of offenders and prompt disciplinary action."

This statement should leave in nobody's mind any doubt that continuing action by the state and county societies will proceed as the evidence warrants. "In 1937," says Dr. David J. Kaliski, Director of the Bureau of Workmen's Compensation of the Medical Society of the State of New York, "the then Industrial Commissioner, Elmer F. Andrews, in answer to a letter . . . . stating that in the opinion of our Council and of his Department we did not possess the power to subpoena witnesses, acknowledged this fact and agreed to my suggestion that such investigations and hearings requiring the oath and subpoena be held by the Industrial Council of the Department of Labor.

"Since then," states Dr. Kaliski, "this matter has been discussed (by the Society) and it was always our belief that all we could do was to bring in a doctor and interrogate him, but could go no further. Section 13-d of the Workmen's Compensation Law does not contain a provision giving the Medical Society's Compensation Boards the right to issue subpoenas. . . . This (power) is included in the Education Law under Section 1265, where the Grievance Committee is given the power specifically. . . . "

On April 26, 1943, the Director of the Society's Bureau of Workmen's Compensation wrote to Acting Industrial Commissioner Michael J. Murphy as follows, in part: "At a recent meeting of the Industrial Council to which you invited me and in conversations with you during the past few weeks, I have advised you of the willingness and desire of the medical societies to fulfill their responsibilities under the Workmen's

Compensation Law to hold trials where either the investigational hearings conducted by Mr. Godfrey P. Schmidt of your Department or the testimony before the Moreland Act Commissioners indicates that physicians may be guilty of violations of Section 13-d of the Workmen's Compensation Law. I was pleased to concur in your suggestion that Mr. Schmidt conduct investigational hearings preliminary to either exoneration or trial of the physician involved. . . . I have been present during the hearings conducted by Mr. Schmidt and it is my opinion that they have been thorough and eminently fair and should be continued. . . . .

"I would respectfully call your attention to the rules and regulations laid down by the Industrial Council governing trials by medical societies. These regulations require that specific charges be served and a period of at least twenty days be given to the accused before he is required to appear before the Board for trial. In this connection, as I have on previous occasions, I again request you to obtain an opinion from the Attorney General as to the power of the Compensation Boards of the Medical Society to administer oaths and to subpoena necessary witnesses.....

"It is of course apparent that unless the Society is clothed with the necessary power of subpoena and the administration of the oath, it cannot successfully carry out these functions, let alone seek out certain violations of the Law. I believe these questions as to our authorization under the Act should again be submitted to the Attorney General for an opinion...."

On May 19, 1943, the Acting Industrial Commissioner transmitted to the Director of the Society's Workmen's Compensation Bureau the opinion of Mr. Nathaniel Goldstein, Attorney General of the State of New York, as follows in part: "My reason in concluding that a medical society, committee, or board has the authority to administer an oath is founded upon the same reason stated in connection with their power to issue subpoenas pursuant to Section 406 of the Civil Practice Act, that they are authorized by Section 13-d of the Workmen's Compensation Law 'to take or hear testimony. . . . in relation to a matter concerning which he or it has a duty to perform.....

"I therefore conclude that medical societies involved in the prescribed investigation and hearings have the direct and personal power to secure the attendance of witnesses by the issuance of subpoenas; and, likewise, have the power to administer oaths to such witnesses as may appear and testify before them."

It is thus apparent that not until the early part of this year could the Society, now apparently vested with power under this opinion, proceed fully to carry out its obligations. "Every remaining case," as Dr. McGoldrick has said, "will be investigated and any person found guilty will be justly punished."

# Mene, Mene, Tekel, Upharsin

These were the words written upon the wall at Belshazzar's¹ feast. What is their significance for American medicine today? Translated freely, the words mean: the years of your sovereignty are numbered and finished; you have been weighed in the balance and found wanting; your kingdom is divided and given away. In the role of very modern Daniels, Messrs. Wagner, Murray, and Dingell have done a job of translating the handwriting into proposed federal legislation! Perhaps in the hope that a chain of gold will be put about their necks?² It is a delicate hope.

At the hour of this writing "the fingers of a man's hand" have come forth and are writing "over against the plaister of the wall" the fact of the seizure of the struck coal mines by the government. In Congress there lies embodied in S. 1161 and its companion bill the mechanism for the virtual seizure of the medical profession by the government, compensated by the sum of \$3,048,000,000 annually of the taxpayers' money, but containing no provision for the return of the profession to its present status of free enterprise after the war or at any other time.

Perhaps it can happen here. It can happen if the people neglect to say they do not want it. Or if they are indifferent to whatever happens. Something like it has happened in Germany, in England, in New Zealand. In the United States the medical and hospitalization provisions of S. 1161 are tied in with many other aspects of social security of which organized medicine approves. But doctors cannot be expected to applaud nor will the public approve if rightly informed of a bald-faced attempt to sell the entire

medical profession into slavery to the Surgeon General of the U. S. P. H. S. forever. If this bill becomes law, it will be possible to say of this official: "Whom he would he slew; and whom he would he kept alive; and whom he would he set up; and whom he would he put down."

Seizure by government of struck mines to maintain absolutely essential coal production in wartime is one thing. Attempted seizure of the medical profession and its affiliated institutions, in none of which is anyone on strike but, on the contrary, producing to capacity with 45,000 and more of its limited physician personnel in the armed services, is quite another. The significance of the handwriting on the wall is the attempt of the government to expropriate and socialize the medical profession of the United States, to sell it into virtual slavery to the Surgeon General of the U.S. P. H.S. when the large number of physicians who are serving the nation in the armed services are in no position to do anything about it. The fact that the A. F. of L. and the C. I. O. seem to be in favor of such seizure of the profession of medicine and have assisted in the writing of the medical and hospitalization provisions of the bill to accomplish it does not, in our opinion, particularly recommend it in the light of the records of the performance of these gentlemen with respect to the public interest. But politics makes strange bedfellows, and it may come to pass that Daniels Wagner, Murray, and Dingell may not, after all, have been such accurate interpreters, politically speaking, of what the fingers of a man's hand were indeed writing over against the plaister of the wall.

<sup>1</sup> Daniel 5:25 et seq 2 Ibid , 5:29.

# THE DEGREE, THE EXTENT, AND THE MECHANISM OF MUSCLE SPASM IN INFANTILE PARALYSIS

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NURING the past three years the medical profession has been invited to change its concepts on the mechanism and treatment of infantile paralysis. Our attention has been drawn to the treatment of muscle spasm, and those who advocate this change speak of the "ever present and damaging effect of spasm"1 on muscle function.

The treatment thus advocated, and now known to the general public as the Kenny treatment of infantile paralysis, makes apparent the need for an investigation of muscle spasm with the help of well-established and accurate scientific methods of recording muscle function.

Those who initiated the Kenny concept and method of treating patients during the acute stage of infantile paralysis have offered clinical observations to substantiate their claims. limitation of the new concept to opinions based on clinical observations was further narrowed by the exclusion of methods for determining the initial distribution and degree of muscle weakness or paralysis before starting treatment. Moreover, no clear pathologic basis for the asserted importance of muscle spasm in the development of muscle weakness has as yet been presented by the proponents of the Kenny con-

In general the established (orthodox) point of view was in full agreement with the teachings of Lovett,2 who had clearly defined the clinical course of the disease in terms of three stages of pathology:

- 1. The Stage of Onset.—Pathologically it is an acute hemorrhagic myelitis and meningitis, and clinically the child is suffering from that, combined with an infection more or less severe. It covers the period from the beginning of the illness until the disappearance of the tenderness because tenderness must be accepted as evidence of an active process still existent in the cord. In those exceptional cases where tenderness is absent, it may be assumed that this stage lasts
- 2. The Stage of Convalescence.—Pathologically, the products of the hemorrhage are being

from four to six weeks.

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943.

Aided by a grant from the National Foundation for Inlantile Paralysis, Inc.

From the Department of Surgery, Division of Orthopsedies, University of Rochester, School of Medicine and Dentistry, Rochester, New York.

\* By invitation

absorbed, edema and perivascular infiltration are diminishing, and, physiologically, the motor area of the brain is trying to send impulses to the affected muscles, only to find certain paths partly or wholly blocked. Clinically, the child is more active and is trying to use the affected parts: tenderness has gone, but the power to execute certain movements may be impaired or lost. Notwithstanding this, there is a continuous gain, under all conditions of treatment or neglect. So-called "trophic" disturbances begin to appear now or later—circulation is impaired, affected members are atrophied and do not grow as they should, and deformities begin to develop. This stage begins with the disappearance of tenderness and lasts for about two years.

3. The Chronic Stage.—Pathologically, edema and perivascular infiltration have long since disappeared, the meningitis has healed, and in place of the destroyed areas in the cord are found focal glioses. Clinically, the case is apparently stationary or retrograding. Spontaneous improvement is much less noticeable than it was in the previous stage, and in most cases it seems to have stopped and so-called trophic changes are present. Deformities from muscular contractions and gravity have occurred in many cases, and further improvement without treatment is not to be hoped for. This stage apparently begins about two years from the onset and continues through life.

This simple and rational statement of the clinical course of the disease was a natural companion to a therapeutic program based on the known character and extent of the pathology of infantile paralysis. By this time there was sufficient understanding of cause and effect that the Hunter-Hilton-Thomas principles of "physiological rest" were applied in the treatment of the acute stage of this disease. For the later stages, there was an equally well-defined procedure of muscle training also based on the prevailing knowledge of pathology which provoked muscle weakness or paralysis.

The invitation to embrace the presence of "spasm as a cause of muscle weakness and paralysis" was a request that we should deny the validity of all that had been learned in the past one hundred and fifty years regarding this disease that annually strikes terror in many communities.

The proponents of the role of muscle spasm have not offered scientific evidence to disprove

the pathology as established since the days of Meden (1887); neither have they followed established procedures which require more than clinical observation to support their claims.

Therefore, before accepting the invitation to embrace this concept and reject all that had gone before, it was necessary to determine the manner in which spasm manifested itself during the acute stage of infantile paralysis.

As stated in a previous publication, we found that "spasticity was present in infantile paralysis. Whether the spasticity is actually responsible for weakening of the muscle or whether it is a phenomenon which is merely another consequence of the disease is a question which cannot be answered at the present time."

Muscle spasm, as it is clinically known in cases of spastic paralysis and similar disease, is most easily recognized by the resistance of the affected muscles to a passive stretch. While a normal muscle on passive stretching gives rise to only a short contraction, the spastic muscle produces a much more prolonged contraction which often results in muscle clonus. It is certainly true that a muscle clonus is rarely, if ever, found in infantile paralysis. It is also clear that the clinical observance of a resistance to stretch which is greater than that of a normal muscle will in most cases be difficult. Not only will it be hard to estimate quantitatively the degree of such resistance; it is also quite possible that such spasm may be too weak to be noticed in a careful clinical examination. It is well known that a muscle can contract without any visible movement. It is reasonable, then, to assume that a reflex contraction on stretching a muscle might be too weak to be observed clinically.

It is, however, possible to record the minimal contractions of a muscle, which are too weak to be either seen or felt, by one of two methods.

When a muscle contracts, it produces both sound and electricity. Bouman and Van Rynberk' have studied the muscle sounds of human muscles during voluntary contractions. The technic of these measurements, however, offers certain difficulties which make it less easily applicable to clinical investigation.

The electricity produced by a muscle during contraction, the so-called action current, can more readily be applied in clinical investigation. Electrodes can be applied to the skin over the muscle that is to be investigated, and the action currents obtained can be amplified and recorded. Stetson and Bouman<sup>5</sup> have shown that it is possible to obtain action current records from fairly closely adjacent muscles by recording through the skin, with hardly any interference between the recorded muscles. Improvements

in the technic now make it possible to record muscle action currents without shielding the patient. The maximal useful sensitivity of the amplifiers is I mm. per microvolt; the sensitivity most commonly used is about 1 mm. per 5 microvolts.

We now use four action current amplifiers and a multiple recording oscillograph to provide for the simultaneous recording of action currents from four different muscles, together with an indicator signal of the beginning and the end of the passive movement. Precise calibration of the amplifiers gives assurance of their absolute sensitivity and also defines the equal sensitivity of the four amplifiers. Development of a special attenuator system has reduced this calibration to a routine procedure which can be carried out in a few moments before the beginning of the actual recording.

Extent of Muscle Spasm.—In Miss Kenny's original concept spasticity was supposed to be a property of the antagonist of the wakened muscle. Our action current records confirm this statement.<sup>3</sup> Passive stretching of the antagonist of the weakened muscle shows a burst of action currents characteristic of a spastic muscle.

Muscle spasm, however, is also found in those muscles whose antagonists do not show evidence of weakening. In patients, for instance, in whom muscle weakening during the entire course of the disease was limited to the legs, spasticity was found to be present in the arm muscles. The neck muscles also show spasticity in nearly all patients.

In the third place, spasticity is found in the weakened muscle itself and is in many instances of considerable magnitude. Moreover, it is found that in many cases the spasticity in the weakened muscles is actually stronger than the maximal voluntary contraction which the patient is able to perform. This evidence indicates that spasticity is a general phenomenon in the early stages of infantile paralysis.

Degree of Spasticity.—The degree of spasticity varies considerably in different patients, and in different stages of the disease. There seems to be no clear relation between the degree of spasticity and the seriousness of the weakening of the muscle. A discussion of the change in degree of spasticity during the course of the disease is outside the scope of this paper. We shall discuss later the relation between the spasticity of the muscle and the strength of its voluntary contraction.

In complete paralysis there is no spasticity. It should be stressed, however, that we consider complete paralysis to be present when there is no evidence of action currents from stimulation by voluntary effort or stretch reflex. Absence of

observable movement is not a valid indication of the absence of activity in the muscle fiber. It is possible for even a normal individual to perform a contraction which is too weak to give a visible movement; action currents, however, show the presence of activity in at least a certain number of muscle fibers.

In most instances spasticity of a muscle is most easily recorded by stretching the muscle. In a considerable number of instances, however. spasticity is evident without passive movements. A similar phenomenon occurs in spastic paralysis. Hoeffer has shown that in such a muscle it is usually possible to find a certain position in which the action currents have a minimum which approaches zero. The same thing occurs in infantile paralysis, being especially clear cut in the neck and shoulder muscles. When the head is supported in a certain position, action currents are almost absent. A position only slightly different from the minimal position will, however, bring the action currents out again in full force.

This position for minimal action currents, however, is not constant in the same patient. It varies from day to day. Also it is not the same for symmetric muscles. That there is a position in which all muscles of an extremity could be permanently immobilized, with the assurance that all action current evidence of spasticity would be constantly absent, is, therefore, subject to question.

Mechanism of the Spasticity.—Even though it may be too early to offer a complete picture of the changes in the neuromuscular mechanism which are the basis of the phenomena observed in the early stages of infantile paralysis, some facts seem to give us at least a working hypothesis. In the first place, evidence at hand indicates that spasticity is a reflex phenomenon and is not due to a process localized in the muscle itself, such as muscle fibrillation or muscle inflammation. It is well known that a muscle deprived of its nerve supply may show fibrillation; however, in our cases in which no voluntary or reflex contraction of the muscle could be obtained, spasticity was also absent.

That spasticity is of reflex origin can be seen from our simultaneous recording of four muscles. If we record, for instance, from two gastocnemii and the two anterior tibial muscles in the same patient, we find that passive stretching of one of the four muscles will result in spasticity in all four muscles—i.e., spasticity spreads to both the ipsilateral antagonist and to both the homilateral muscles, which can be explained only if spasticity is a reflex phenomenon.

Spasticity spreads to the antagonist and other muscles not only in passive stretching of the

muscle but also on voluntary contraction of the muscle. It is clear that this phenomenon is different from what is commonly observed in spastic paralysis in patients or in animal experiments by transection of the spinal cord. According to Sherrington's principle of reciprocal innervation, contraction of a muscle should result in relaxation of the antagonist, and not, as in the case of infantile paralysis, in contraction (spastic-This reversal of reciprocal innervation is important in the maintenance of spasticity in infantile paralysis. A minor contraction of one muscle would set off spasticity in the antagonist, and this spasticity, being in itself nothing but a prolonged form of contraction, will in turn provoke spasticity in the original muscle, and so on. We are dealing, then, with a vicious circle in which one muscle keeps its antagonist going and the antagonist, in turn, maintains the spasticity in the original muscle. Only when the spasticity has disappeared during the course of the disease, or when one of the two muscles is completely paralyzed so that it can no longer produce spasticity, will this vicious circle be broken.

This reversal of the reciprocal innervation raises a question as to what constitutes the difference between the mechanism underlying the spasticity in spastic paralysis due, for instance, to a transverse lesion of the spinal cord, and the spasticity that is found in infantile paralysis. It is generally assumed that the spasticity which results from a transverse lesion of the spinal cord is due to a lack of inhibitory impulses coming down to the motor neurons from the higher centers via the pyramidal tracts. In this case the influence of the brain centers has been eliminated, resulting in the phenomena that are known in spastic paralysis due to transverse lesions.

Evidently the mechanism in infantile paralysis is different, and it might be supposed that this is due to the fact that in infantile paralysis the lesion is much closer to the motor neurons of the muscles involved than in the case of the transverse lesion. In other words, could it be possible that the parts of the spinal cord between the motor neuron of the muscles examined and the lesion are responsible for the difference in phenomena between transverse lesion spasticity and infantile paralysis spasticity? Van Rynberk and his coworkers, have experimented with dogs with one isolated spinal cord segment. Three segments above and three segments below the isolated segment were destroyed in such a way that the isolated segment survives without any neural connections to other spinal cord segments. The skin area innervated by this segment could be stimulated and the skin reflexes obtained from the usual type of spinal cord animal. The muscle reflexes from the muscles innervated by this area, however, are completely changed in character. If one of these muscles is stimulated, either by deep pressure through the skin or by stimulation of the muscle after removal of the skin, a reflex contraction occurs in all muscles innervated by the segment. Instead of the usual type of muscle reflex of the spinal animal, which includes reciprocal inhibition, they obtain in the single segment animal a generalized contraction of all muscles of the same spinal level as seen when one of the muscles is stimulated.

It is clear that these phenomena are similar to those that we described in patients who were affected by infantile paralysis. It follows then that the patient who is affected by infantile paralysis is, so far as his reflex mechanism goes, comparable to the animal with a single isolated segment, and not to the usual type of spinal animal. This must mean, then, that in infantile paralysis the lesion should be located close to the motor neurons themselves. That higher parts of the spinal cord have an inhibitory effect on the lower parts of the spinal cord has become clear from the recent work of Lloyd (see below).

He investigated the inhibitory effect on a motor neuron reflex of impulses delivered to a sensory root close to the level of the root which is being examined and also of stimulates of sensory nerves further away from the level of the reflex being examined.

Our considerations then lead us to the conclusion that in infantile paralysis the inhibitory impulses from the higher centers are blocked in very close proximity to the motor neurons. This might take place either at the synapses of these fibers at the motor neurons or it might be due to the failure to conduct in internuncial cells inserted in the fibers coming from the higher centers and located in close proximity to the motor neurons. It should be noted that the voluntary contractions in the affected muscles are also decreased. Evidently the motor impulses are not able to reach all motor neuron cells unimpeded. If the motor tracts and inhibitory tracts are separate up to the anterior horn cells, the conclusion would have to be drawn that the transmission difficulty occurs in the synapses on the motor horn cells. This would be in agreement with the generally accepted anatomic picture which places the lesion of infantile paralysis in the motor horn cells. However, even if the motor horn cells are no longer able to receive inhibitory impulses from higher centers of the cord, or the motor impulses which give the voluntary contraction, they are

still able to receive the impulses coming from the muscles of about the same spinal levels. We found in many records of seriously weakened muscles that the reflex spasticity is actually stronger than the maximal voluntary contraction. This must mean that some of the motor neurons are no longer able to receive impulses from higher centers, either inhibitory or excitatory, while they are still able to receive impulses from the short reflex arcs. We can go even farther than this. We mentioned above that spasticity is found even in those muscles which showed no weakening of their voluntary contractions. In this case only the inhibitory impulses from other parts of the spinal cord have disappeared, while both the voluntary motor impulses and the excitatory impulses from the short reflex arcs are able to reach the motor neuron cells.

Recent investigations have produced considerable insight into the spinal mechanism of the muscle reflexes. Renshaw<sup>9</sup> stimulated dorsal roots of the spinal cord and ledoff action currents from the ventral roots. He determined the time interval between the stimulus and the first group of impulses in the ventral root record. Taking into account the conduction time in the spinal cord, he found that there was an extra time needed for transmission of about 0.65 msec. This time is known to be of the order of magnitude of a single synaptic delay. In other words, there are impulses which traverse the spinal cord from sensory to motor side and meet only one synapse, which must then be located at the motor neuron. There are later groups of action currents in the ventral roots which are due to those impulses which have passed through more than one synapse in the spinal cord. Lloyd10 has extended these experiments. Instead of stimulating the dorsal roots, he stimulated the sciatic nerve and its branches, again taking into account the conduction time of the impulses from the locus of stimulation to the spinal cord. He found that if the sensory fibers in a muscle branch of the sciatic nerve are stimulated, the time interval allows for only one synapse in the spinal cord. If a cutaneous branch is stimulated more than one intraspinal synapse is involved. This means that the proprioceptive impulses meet only one synapse in the spinal cord, which must then be located at the lower motor neuron. In other words, the proprioceptive reflex are of a muscle does not involve internuncial neurons in the spinal cord but its sensory fiber reaches directly to the motor neuron. This so-called two-neuron arc reflex can now be inhibited by impulses from other dorsal roots. Lloyd11 shows that inhibitory impulses from adjacent dorsal roots again have their effect at the lower motor neurons, the time relations between the

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inhibitory stimulus and the beginning of the inhibition do not allow for more than one synapse. Again on stimulation of the brachial plexus, Lloyd<sup>12</sup> finds an inhibitory effect which is due to a direct action in the motor neurons, while pyramidal excitatory impulses reach the motor neurons via internuncial neurons.13 It appears then that the inhibitory functions of adjacent segments of the spinal cord are due to an immediate effect on the motor neurons. infantile paralysis these inhibitory impulses seem to have disappeared, and the result is a phenomenon similar to that in the single segment animal. Our conclusions seem to agree with the classical localization of the lesion in and related to the motor neurons. In fact, this means that the motor neurons can no longer be excited by the direct inhibitory impulses which reach them through short reflex arcs, while the excitatory impulses still stimulate the anterior horn cells.

Thus we see that in infantile paralysis in the weakened muscles the motor neurons are no longer influenced by either the impulses needed for a voluntary movement or the inhibitory impulses, while they are still being influenced by the excitatory impulses reaching them through the short reflex arcs. At the motor neurons arrive three separate groups of impulses: (1) the impulses giving the voluntary contractions, (2) inhibitory impulses, and (3) excitatory impulses from the short reflex arcs. We saw above that in the weakened muscle only the third group is able to influence certain motor neurons. However, we mentioned that in infantile paralysis even the muscles which show no evidence of weakening can be spastic. It is clear on the basis of the explanation offered here that in that case only the inhibitory impulses fail to effect the motor neuron, while both the short reflex arcs and the voluntary impulses are still effective. In this "ay, spasm of the particular type encountered in infantile paralysis can be explained, owing to a decrease in the excitability of the motor neurons. Only when they lose their excitability completely does all evidence of voluntary motor function disappear, and with it disappears the last remainder of spasticity.

It appears then that the motor neuron can receive three separate groups of impulses. The recorded evidence indicates that in infantile paralysis the motor neuron may lose its exvitability to either one, two, or all three of these impulses. If only the excitability to inhibitory impulses is gone, the motor unit innervated by the particular neuron will show spasticity but no decrease in voluntary function. If both the inhibitory and voluntary impulses are no longer able to excite the motor neuron, spasticity will

be present while the muscle will show decreased function, and finally when all motor neurons have lost the excitability to all three types of impulses both voluntary contraction and spasticity of muscle will disappear.

# Summary

Spasticity is a general phenomenon in the early stages of infantile paralysis. It is independent of muscle weakening and appears in agonist and antagonist muscles which do not show weakening during the course of the disease.

This latter fact means that spasticity in a certain muscle is not automatically followed by weakening of its antagonist. In fact, spasticity and weakening are two separate phenomena, each dependent on disturbance of specific functions of the anterior horn cells. Recent findings in the physiology of the spinal cord have made it possible to offer a scientific explanation of the mechanism of muscle spasm in infantile paralysis.

The data obtained from the treatment of 22 infantile paralysis patients in regard to the course of improvement in muscle function and the disappearance of spasticity under treatment are now being summarized for early publication.

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Discussion

Dr. R. Plato Schwartz, Rochester, New York-Infantile paralysis has been a serious problem since the severe Brooklyn epidemic of 1916. Since that time, this disease has provoked public fear and professional concern throughout the North and South American continents. For these reasons we are particularly grateful for the two papers which have

just been presented. The "New Developments in Infantile Paralysis" expresses the point of view of Dr. Don W. Guda-

kunst,\* Medical Director of the Foundation. We are grateful for this summary because it provides the basis for a frank discussion of some important questions which have developed in and which

<sup>\*</sup> New York State J. Med. 43: 1514 (Aug. 15) 1943.

obtained from the usual type of spinal cord animal. The muscle reflexes from the muscles innervated by this area, however, are completely changed in character. If one of these muscles is stimulated, either by deep pressure through the skin or by stimulation of the muscle after removal of the skin, a reflex contraction occurs in all muscles innervated by the segment. Instead of the usual type of muscle reflex of the spinal animal, which includes reciprocal inhibition, they obtain in the single segment animal a generalized contraction of all muscles of the same spinal level as seen when one of the muscles is stimulated.

It is clear that these phenomena are similar to those that we described in patients who were affected by infantile paralysis. It follows then that the patient who is affected by infantile paralysis is, so far as his reflex mechanism goes, comparable to the animal with a single isolated segment, and not to the usual type of spinal animal. This must mean, then, that in infantile paralysis the lesion should be located close to the motor neurons themselves. That higher parts of the spinal cord have an inhibitory effect on the lower parts of the spinal cord has become clear from the recent work of Lloyd (see below).

He investigated the inhibitory effect on a motor neuron reflex of impulses delivered to a sensory root close to the level of the root which is being examined and also of stimulates of sensory nerves further away from the level of the reflex being examined.

Our considerations then lead us to the conclusion that in infantile paralysis the inhibitory impulses from the higher centers are blocked in very close proximity to the motor neurons. This might take place either at the synapses of these fibers at the motor neurons or it might be due to the failure to conduct in internuncial cells inserted in the fibers coming from the higher centers and located in close proximity to the motor neurons. It should be noted that the voluntary contractions in the affected muscles are also decreased. Evidently the motor impulses are not able to reach all motor neuron cells unimpeded. If the motor tracts and inhibitory tracts are separate up to the anterior horn cells, the conclusion would have to be drawn that the transmission difficulty occurs in the synapses on the motor horn cells. This would be in agreement with the generally accepted anatomic picture which places the lesion of infantile paralysis in the motor horn cells. However, even if the motor horn cells are no longer able to receive inhibitory impulses from higher centers of the cord, or the motor impulses which give the voluntary contraction, they are

still able to receive the impulses coming from the muscles of about the same spinal levels. We found in many records of seriously weakened muscles that the reflex spasticity is actually stronger than the maximal voluntary contraction. This must mean that some of the motor neurons are no longer able to receive impulses from higher centers, either inhibitory or excitatory, while they are still able to receive impulses from the short reflex arcs. We can go even farther than this. We mentioned above that spasticity is found even in those muscles which showed no weakening of their voluntary contractions. In this case only the inhibitory impulses from other parts of the spinal cord have disappeared, while both the voluntary motor impulses and the evcitatory impulses from the short reflex arcs are able to reach the motor neuron cells.

Recent investigations have produced considerable insight into the spinal mechanism of the muscle reflexes. Renshaw9 stimulated dorsal roots of the spinal cord and ledoff action currents from the ventral roots. He determined the time interval between the stimulus and the first group of impulses in the ventral root record. Taking into account the conduction time in the spinal cord, he found that there was an extra time needed for transmission of about 0.65 msec. This time is known to be of the order of magnitude of a single synaptic delay. In other words, there are impulses which traverse the spinal cord from sensory to motor side and meet only one synapse, which must then be located at the motor neuron. There are later groups of action currents in the ventral roots which are due to those impulses which have passed through more than one synapse in the spinal cord. Lloyd10 has extended these experiments. Instead of stimulating the dorsal roots, he stimulated the sciatic nerve and its branches, again taking into account the conduction time of the impulses from the locus of stimulation to the spinal cord He found that if the sensory fibers in a muscle branch of the sciatic nerve are stimulated, the time interval allows for only one synapse in the spinal cord. If a cutaneous branch is stimulated more than one intraspinal synapse is involved. This means that the proprioceptive impulses meet only one synapse in the spinal cord, which must then be located at the lower motor neuron. In other words, the proprioceptive reflex are of a muscle does not involve internuncial neurons in the spinal cord but its sensory fiber reaches directly to the motor neuron. This so-called two-neuron arc reflex can now be inhibited by impulses from other dorsal roots. Lloyd11 shows that inhibitory impulses from adjacent dorsal roots again have their effect at the lower motor neurons, the time relations between the

give practical expression to her concept of spasm, the National Foundation allocated funds to create the instruments necessary for investigation of neuromuscular behavior as related to this theory of spasm.

At this point I wish to ask Dr. Bouman a question. Given a muscle which is completely paralyzed, have you recorded evidence of returning function? If so, what is the role of spasm in association with the return of function?

Furthermore, Dr. Bouman has stated his reasons for not recording muscle sounds in such a clinical investigation. I should like for him to tell us what other method, or methods, might be of practical value in conjunction with the action current amplifiers now in use?

In conclusion, I wish to state a personal conviction. The evidence at hand, of which Dr. Bouman's paper is a part, clearly indicates that spasm of skeletal muscles is a generalized phenomenon during the acute stage of infantile paralysis. Furthermore, the various ways in which it manifests itself are not detectable by clinical methods of examination, but, when revealed in action current records, can be explained on the basis of the established behavior of the neuromuscular mechanism as determined by reliable investigators. Finally, it is quite clear that because of Miss Kenny's concept of spasm, we now know from laboratory investigations that the function of the motor neurons may be impaired in one of three ways instead of in only one, as was believed in the past.

Dr. Bouman—The return of function in a completely paralyzed muscle which shows no evidence of action currents is quite possible. This happens in steps. There is first an increase in action currents during voluntary contraction combined with an increase in spasticity. Gradually this spasticity is reduced while the voluntary contraction strength remains. With the next increase in contraction strength there is again a temporary increase in spasticity and so on.

Another way to study the changes in the neuromuscular apparatus during the course of infantile paralysis would be to measure the excitability for instance, by means of measuring chronaxia. Chronaxia determinations have been tried and abandoned in many clinical investigations, owing largely to the present unreliability of the method.

New methods are being worked out in our laboratory to obtain a more reliable determination of muscle excitability. It should be stressed, however, that even if the method could be made reliable, chronaxia would give information only as to the status of the muscle at a certain time. In other words, chronaxia measures a certain condition which the muscle is in at a certain time but not its actual physiologic function. Action currents, on the contrary, are an expression of actual physiologic muscle function. Chronaxia then could be of value if used in combination with action current recordings, provided that the technic of chronaxia measurement could be made reliable.

# MODES OF SPREAD OF INFANTILE PARALYSIS

At the conference of the Federation of Sewage Works Associations in Chicago in October Maxcy and Howe reviewed the significance of the occasional presence in sewage of the virus of infantile paralysis. The demonstration of the virus in the stools of patients and of carriers has been supplemented by the finding of the virus several times in urban sewage in periods of maximal incidence of the disease. This observation at once raised the question whether the virus in sewage can make its way into water supplies for drinking and for swimming pools and thus perhaps spread the disease. Maxey and Howe point out that the virus can live only a short time in sewage so far as known now and that there is no likelihood of its surviving the passage through water purification plants. There is no evidence at hand that the virus can live on or multiply in water. Maxcy and Howe stressed the fact that infantile paralysis does not behave like a water-borne disease. It has not been "correlated with poor water supplies nor have explosive outbreaks of widely scattered cases." appeared in cities with municipal water systems, which would be expected to occur if virulent virus was disseminated in the water mains. Cities with water supplies remote from human abodes suffer from infantile paralysis as frequently as cities whose water comes from sewage-polluted sources. Indeed, the epidemic spread of the disease has been quite independent of common water supplies. There is no record of any explosive outbreak of infantile paralysis attributable "to simultaneous exposure of a group of people to a common source of water." Consequently it seems safe to conclude that the presence under certain circumstances of the virus of infantile : significance as far as the is concerned.

Maxcy and Howe consider also the transmission of infantile paralysis by flies and by personal contact. The virus has been demonstrated in flies in epidemic areas, but flies are not invariably associated with the disease and the disease would not "attack children preponderantly, as is the case, were it transmitted primarily by the fly or any other insect." How about the patient himself and the carrier as sources of infectious virus? In both the virus is present in the stools, the secretions, and the walls of the pharynx; hence it can pass to other persons by means of fecal contamination of the hands, food, milk, and other objects as well as by droplets of pharyngeal mucus.

Present knowledge points to contact infection as the most important means of spreading infantile paralysis. This being the case, everything in human power must be done to prevent contact infection. Unquestionably there is need now for closer isolation than has been carried out in the past. The discovery of practical methods for detection of the virus and for determination of infectiousness on the part of the patient and of potential carriers is a task for the future, not to mention the possibility of finding means to hasten the destruction of the virus in the human body.—J.A.M.A.

have been related to the profession during the past three years.

All of us are aware of the many significant discoveries that have been made in the recent past. This is to be credited to two causes: (1) the organization and direction of the National Foundation, Incorporated, under Mr. Basil O'Connor, as President, and Dr. Don W. Gudakunst, as Medical Director, and (2) the fact that the research work of the National Foundation was based upon all that had been learned about infantile paralysis since 1784 when Michael Underwood was credited with the earliest recognition of the disease.

There is only one reason why infantile paralysis provokes fear and that is because the disease is known to be followed by muscle weakness or paralysis. Until 1940 the cause of this effect was generally agreed upon. It was first explained by G. Meden in 1887 on the basis of pathologic changes found in and related to the motor neurons of the spinal cord. This point of view was closely associated with the classical work of Ivar Wickman as published in 1909. Wickman is credited with first raising the question of the point of entrance. the method of infection, and the spread of the virus. As related to the then current discussion, he stated that the essential points to be determined are: "First, why the malady which from a pathological standpoint is a strictly localized affection, develops clinically as a systemic disease; and second, why the effects are limited practically to the anterior horn and are not distributed as in a transverse myelitis." As to portal entry in human beings, it was his belief that, "infection takes place by way of the alimentary canal." He further regarded "the spread of the virus from the site of inoculation especially by way of the nerves: the infection extending along the lymphatics which accompany the nerves."

In 1912, Peabody, Draper, and Dochez\* examined autopsy material from eleven human patients who died during the acute stage of infantile paralysis. They found practically constant occurrence of "lesions in the posterior ganglia. The histological changes are similar to those that take place in the cord itself . . . . . These lesions in the sensory ganglia may in part account for the pain which is such a constant feature of the acute stage of the disease. Another element in the production of pain is the cellular filtration which is found along the nerve roots."

The volume of work done on the subject of infantile paralysis was indicated by the critical analysis of more than 8,000 references, representing the report of the International Committee published in 1932, under the direction of Dr. W. H. Park. From this and other sources one learns that evidence of the direct and indirect effect of the virus has been shown to prevail throughout numerous levels of the nervous system, the lymphatics, and other structures. But, despite the side distribution of pathologic changes previously defined and more recently revealed, pain, when present, is usually

limited to a few weeks while muscle weakness or paralysis does not always occur, and when it is present it is almost always followed by improvement for six months or longer following onset, despite the mode of treatment employed. Recognition of these well-established facts further intensifies the difficulties of drawing valid conclusions on the results of one method of treatment versus another, particularly when the dominant evidence of developing deformities is usually presented by patients in the chronic stage about two or more years after onset.

In referring to the absence of correlation between the clinical symptoms and the pathologic findings Dr. Gudakunst has stated that the picture is indeed a complicated one. This is probably why Wickman gave the following classification in 1911: (1) ordinary paralysis—anterior poliomyelitis; (2) progressive paralysis—Landry's paralysis; (3) bubar paralysis—polioencephalitis of the pons; (4) acute encephalitis—giving spastic paralysis; (5) atoxic type; (6) meningitis type; (7) polyneuritis type; and (8) abortive type

But it must again be emphasized that the permanent functional limitations that characterize the disabilities of infantile paralysis are characteristically limited to the skeletal muscles.

As to treatment, the principle of rest in the treatment of disabled extremities is instinctive in animals and man. It is truly a part of the Kenny method of treatment. But here we are concerned more with the Kenny concept of spasm as a cause of dysfunction in muscles as against flaccid paralysis, while at the same time the Kenny concept does not preclude the possibility of a true paralysis occurring as a result of massive destruction of anterior horn cells.

The author has given us a clear statement of Miss Kenny's concept of spasm as she finds it to prevail in voluntary muscle and her regard for spasm as the prominent and important symptom. Miss Kenny further believes that spasm is directly, or indirectly, responsible for most of the symptoms—i.e., pain, tenderness, and contraction. Miss Kenny goes further: she believes that the stretching of a muscle by a spastic antagonist can cause the stretched muscle to lose its power of contraction.

Because these views, advanced by Miss Kenny, have come from her experience as a nurse, Dr. Gudakunst and the Advisory Committee of the National Foundation for Infantile Paralysis, Incorporated, recognized the need for investigations, based on established laboratory methods, for determining the neuromuscular reactions of patients during the acute stage of infantile paralysis.

Dr. Bouman's paper represents the results of such an investigation. Therein it was revealed that muscle spasm is much more widespread throughout the voluntary muscles than Miss Kenny originally believed. All information thus far acquired from such investigations is the result of the clinical application of principles developed in physiologic laboratories and expressed by the incorporation of special features in the combination of four action-current amplifiers and the multiple recording oscillograph.

While affording an opportunity for Miss Kenny to

<sup>\*</sup>Monograph No. 4, Rockefeller Institute for Medical Research, New York, 1912, p. 22.

The spermatic specimen is obtained from the proper donor (or husband, as the case may be) in the office, by manual manipulation and is ejaculated into a sterile 25 cc. glass beaker. If this material is permitted to stand for about five minutes, its consistency becomes less viscid and it is more easily aspirated into the 5 cc. syringe. The potency of the spermatozoa is not materially altered. The introduction of the entire amount into the cup is facilitated by the use of the "extension."

The anterior rim of the contraceptive diaphragm is pried away from the anterior vaginal wall with the left index finger. It is important not to dislocate the diaphragm from the posterior fornix, which is its fixed point posteriorly. With the right hand the syringe is held so that the extension is introduced into the cup. The entire amount of the ejaculate is injected into the cup, and the diaphragm is permitted to go back into place (Fig. 2). The anterior rim is pushed behind the symphysis pubis to make it secure. The patient is permitted to get up immediately. The diaphragm is not removed for twenty-four hours. The patient is warned not to douche.



Fig. 2. Schematic drawing of the technic of artificial insemination with the aid of a contraceptive diaphragm.\*

This procedure of insemination is repeated three times; on the twelfth, fourteenth, and sixteenth days after the beginning of the menstrual period, as a rule.

The major advantages of this procedure are.

- 1. It does not produce any trauma.
- Prolonged contact of the spermatic specimens with the cervical canal is insured.
- 3. The vaginal diaphragm reduces the volume of the space within which the small amount of spermatic fluid is kept confined by its proper fitting where it can do most good. There is no loss of fluid by leakage or absorption by tampons.
- 4. The diaphragm actually lifts the cervical os away from the posterior vaginal wall so as to enhance the possibility of insemination.

5. The entire procedure is simple and without danger of infection if carried out properly.

6. Its most important asset is the probability that it will reduce the time and the number of attempts necessary for successful artificial insemination.

The author wishes to report four consecutive successful inseminations in cases that were definitely proved to require this procedure. In fact, the husband was used as donor in three of the four cases and a suitable donor was used in the case reported. In the first two cases, spermatic fluid was introduced into the cervical canal with the help of a flexible cannula and extension (Fig. 1).

The cannula shown in Fig. 1 has the advantage of not being occlusive and, at the same time, of being atraumatic. Successful results were obtained with the two cases in three monthly attempts. The diaphragm method was used in the last two cases. Successful results in both of these cases were obtained in two months and in one month, respectively.

# Summary

A method of artificial insemination using the vaginal diaphragm is suggested.

The method is simple to perform, is nontraumatic, and lends itself to more extensive use as indicated.

#### Discussion

Dr. I. C. Rubin, in his discussion of this report when it was presented at the New York Academy of Medicine, pointed out that he had made the following comment in 1933: "Great care should be exercised in injecting of the spermatic fluid; much pressure must be avoided, as the semen can be introduced into the tubes and out into the peritoneal cavity, resulting in peritoneal irritation and pelvic inflammation.

This artist's drawing was made available to me through the kindness of the gynecologic division of Julius Schmid. Inc. —Author

# ARTIFICIAL INSEMINATION AIDED BY THE USE OF THE VAGINAL DIAPHRAGM

Borris A. Kornblith, M.D., F.A.C.S., New York City

NUMBER of critical reviews of the subject  $\Lambda$  of artificial insemination have appeared recently. The reports of Alan F. Guttmacher in the Bulletin of the New York Academy of Medicine of August, 1943, and another by Clair E. Folsome in the American Journal of Obstetrics and Gynecology of June, 1943,2 are very complete. These take up fully the discussion of the various aspects of this subject, such as the indications for the procedure, the selection of suitable cases, the selection of a homologous or heterologous donor; the psychologic aspects, sociologic consequences, religious considerations, and medicolegal aspects, of this procedure. There is little unanimity of opinion regarding any of these phases, and each one has stirred up some acrimonious discussion in the recent literature.3.4 There is one point upon which all, even the most critical, agree, and that is that "artificial insemination as a means to overcome sterility in the barren couple, wherein the male is principally at fault, is a medical procedure valuable only as a final answer in certain carefully selected and thoroughly studied cases."2

Artificial insemination as a method of overcoming sterility has been widely used. 1,5 It is noteworthy that the exact technic employed up to the present has not been described in detail and that the methods used have been left to the ingenuity of the individual physician. The result has been the utilization of various larger or smaller rigid metal or plastic cannulas which are likely to traumatize the cervical canal or endometrium the moment they are introduced with the specimen. This may account for some of the failures encountered. Until now between twelve and twenty-one attempts at insemination were necessary before a pregnancy resulted in the majority of successful cases. 6

Since the concept is apparently sound, any method which may make the technic easier and possibly reduce the time necessary for successful insemination deserves further trial. With this in mind, the following method is suggested. It is not the province of this communication to intrude upon the other more complex issues involved in the problem of artificial insemination.

### Equipment

The necessary equipment consists of the following sterile set (Fig. I):

Presented before the Section of Obstetrics and Gynecology of the New York Academy of Medicine, October 26, 1943.

- A. A Luer syringe, 5 cc. The standard syringe will do, but a Luer-Lok syringe is preferable to avoid a possible dislocation of the unit and loss of the specimen.
  - B. A Luer needle extension.
- C. A special silver needle (cannula) with bulbous point.
  - D. A glass beaker, 25 cc.
  - E. A vaginal diaphragm.

# Technic

The patient is placed in the dorsosacral (lithotomy) position. A vaginal speculum is introduced and the cervix is wiped clean with dry absorbent cotton. The cervical canal is then cleaned out with sterile applicators, and the mucqus plug is wiped out as much as possible without injuring the cervical canal. The speculum is then removed and a properly fitting, previously boiled, vaginal diaphragm is introduced. Boiling removes any chemical irritant or powder from the rubber. The cupped side faces cephalad so that the cervix will be confined in the concave aspect and be bathed in the pool of spermatic fluid which will be introduced into the cup. The diaphragm is left in place for about ten minutes in order to assume body temperature. This will reduce the factor of injury to the spermatozoa because of temperature differences. During this period, the diaphragm becomes coated with the vaginal secretions and thus reduces the amount of direct contact of the spermatozon with the uncoated rubber.

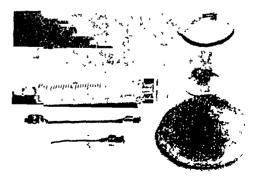


Fig. 1. A. B-D Yale Luer-Lok No. 5YL—5 cc. B. B-D Luer needle extension (Luer-Lok Slip to Luer-Lok Slip LLX—2½ inches). C. B-D Special silver needle (cannula)—bulbous point ½ inches, 43 LAC. D. Glass beaker—25 cc. E. Standard contraceptive diaphragm.

# FEVER AS AN ADJUVANT TO SPECIFIC THERAPY IN SYPHILIS

Evan W. Thomas, M.D., New York City

THE use of fever as a uncraped of far back in history. Bierman' in an interesting THE use of fever as a therapeutic agent dates paper has traced the use of hot baths and other fever-producing agents among the Egyptians and ancient Greeks as long ago as the fifth century B.C. Hot vapor baths and hot mud holes were used by the American Indians in the treatment of disease, and Bierman quotes many other instances of the empirical use of fever in prescientific medicine. The combination of heat and mercury was widely used during the seventeenth century in treating all types of syphilis. In numerous instances fumigations with mercury in an oven were probably more injurious to the well-being of patients than syphilis would have been, but there is little doubt that this treatment checked the progress of the syphilitic infection.

As medicine became more scientific and the toxic effects of heat and mercury were generally recognized, the use of heat in the treatment of syphilis was abandoned and for all practical purposes entirely forgotten for many years. In the eighteenth century the medical profession regarded fever as a dangerous symptom. As a result, antipyretic drugs became one of the most popular weapons in the physician's armamentarium and continued to be until relatively recent

About the year 1870 Pfluger and Wunderlich attempted to stress the possible physiologic value of fever in fighting infections, but it was not until the second decade of the present century that the use of fever as a therapeutic agent received popular recognition in modern medicine. was largely due to Wagner-Jauregg's success with malaria in the treatment of general paresis.

Wagner-Jauregg's interest in fever as a therapeutic agent started in the nineteenth century. In 1887 he published his first paper on "The Influence of Fever-Producing Diseases on Mental Disorders."2 Among the authors quoted in this article was Kiernau, an American physician, who in 1884 published a report on the remissions of mental disorders in patients who acquired small pox in a New York City asylum. Prior to his success with malaria in treating general paresis, Wagner-Jauregg experimented for many years with numerous fever-producing agents. Although he originally thought of malaria, he hesitated to

use it because of the possible dangers involved in its relapsing characteristics. Consequently in the early years of his experiments he tried erysipelas, then tuberculin and typhoid vaccines. It was not until 1917, when he had already decided that patients suffering from general paresis were the most likely to be benefited by fever, that he turned to malaria. The striking results obtained with this therapy in paretics won the Nobel Prize for Wagner-Jauregg. Since that time the use of fever has been widely adopted and has come to be recognized as the most valuable weapon now available in the treatment of meningo-encephalitis due to syphilis.

Probably because Wagner-Jauregg approached the use of fever from its observed effects on mental disorders and because he originally reported its use only in cases of general paresis, most physicians gained the impression that only cases of general paresis or so-called parenchymatous neurosyphilis were suitable for fever therapy. This idea is still far too prevalent among syphilologists. As far back as 1919 Dattner,4 in Wagner-Jauregg's clinic in Vienna, began to treat types of neurosyphilis other than general paresis with fever therapy. He and others have now established its value in all types of neurosyphilis, and there is reason to believe that fever has an important place in the treatment of all stages of syphilis.

# The Rationale of Fever Therapy in the Treatment of Syphilis

The reasons for the benefits of fever in the treatment of neurosyphilis have been the subject of much speculation. In the space allotted to me it is impossible to review the literature on this most interesting problem. Suffice it to say that the solution must be sought along two general lines of investigation: (1) the physiologic effects of fever in the host which make for increased resistance to the syphilitic virus and (2) the direct effect of heat on the Spirochaeta pallida. In all probability both of these factors are important in explaining the beneficial effects of fever in syphilis.

With respect to the first factor, investigation of the physiologic effects of fever in the host must be conducted from at least two points of view: (1) the physiologic effects of high temperatures. regardless of how they are induced, and (2) the immunologic reactions and altered sensitivity of cells due to foreign proteins or infectious agents which produce fever. It is well known that high

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When this is feared, the fresh semen can be transferred into a rubber cervical cap and the latter fitted over the cervix for twenty-four hours."7

Dr. Robert L. Dickinson discussed early methods of artificial insemination and the difficulties encountered in attempting to retain seminal fluid in the cervical canal. He also drew attention to the mechanism of ascent of spermatozoa into the uterus as described by Kolbows-i.e., that when fluid is present in the posterior fornix, the vaginal wall shows intrinsic contraction which lifts the pool of fluid up against the cervical os. This would prove to be an argument in favor of the method described.

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### MOLDS MAKE ANALYSES

Molds that can outdo skilled chemists at one special and difficult job of analysis were the strange creatures introduced to the American Chemical Society at its meeting in Pittsburgh, by Dr. Erwin Brand of Columbia University.

The task at which these humble but biochemically sensitive plants have worked is the accurate determination of the concentration of one of the building blocks of protein in extracts of several protein varieties. With their aid it has been possible to make such determinations in a few days, whereas by previously existing methods a whole corps of highly trained chemists would have to work for months to achieve an equally accurate outcome.

The story begins with the creation of special physiological races of a red mold, botanically known as a Neurospora, in the laboratories of Dr. George W. Beadle at Stanford University. By x-ray treatment, a parent strain was induced to undergo evolutionary changes. Pure lines of descent of these new races were assured by isolating single reproductive spores and growing small "gardens" of mold from each one.

Some of these strains were physiologically very choosy. They required one kind of amino acid, one of the building blocks of protein, and would not grow without it. One of the strains had to have the amino acid known as leucine. This is the one that Dr. Brand used in his researches.

Grown on nutrient preparations of various pro-teins, this "minus-leucin" strain of mold would develop a certain amount of weight for each per cent of leucin present in its food. Then it would stop. After giving it time enough to reach full growth, Dr. Brand and his associates would harvest the mold, dry and weigh it, and thus learn immediately what would otherwise have taken months of tedious toil.

The practical value of this kind of research is very great, but it will take years of continued effort to develop it fully. Protein analysis is one of the most difficult of all chemical jobs, yet it is important for such work to be done because proteins are not only the stuff our muscles are made of but also many of the other important though less bulky constituents of the body, and many of the poisons that make us ill and the medicines that make us well. Snake and spider venoms are proteins, and also insulin and all the physiologically important gland extracts. So there is plenty of work ahead for both the chemists and their specially bred molds, for a long time to come. - Science News Letter

# MEDICAL WRITING UNDER DIFFICULTIES

The first issue of the Chinese Medical Journal, January-March, 1943, since Pearl Harbor has just made its appearance. The official organ of the medical profession in China is published in Chinese for circulation in Free China, and in English in the United States with the aid of the China Foundation. That a creditable journal, and indeed it is a very creditable one, could be produced under the diffi-culties that now exist in China is truly remarkable. Most of the larger and better medical institutions in occupied territories have been closed. Many of the medical schools have been moved into Free China, but at a tremendous loss of equipment, supplies, and teaching personnel. The editor calls attention to the fact that writing in a foreign language without the necessary well-equipped hos-

pitals and laboratories in which to work and without proper library facilities is not productive of an overabundance of first-class articles. He says nothing of the difficulty of printing and publishing the Journal on the other side of the world, but promises to do his best to uphold the high standards that the Chinese Medical Journal has always had. The "News and Notes" gives additional evidence, if any be needed, of the difficulties with which our Chinese conferrs have to contant. Chinese conferers have to contend. For instance, in Shanghai, where it seems the Chinese doctors are carrying on with their practices in spite of numerous emergency obstacles, Dr. W. S. Fu has borrowed a tandem bicycle. The doctor rides on the back seat while his former chauffeur pedals and steers in front.-Virgina Medical Monthly

# Fever as an Aid in the Rapid Treatment of Early Syphilis

It is not within the scope of this paper to recapitulate the recent history of attempts to cure early syphilis within a period of a few days or weeks. Numerous thousands of patients with early syphilis have now been treated by various modifications of the method first introduced by Chargin, Leifer, and Hyman. For the best results, if treatment is to be confined within a period of from five to ten days, a total of at least 1 Gm. of arsenoxide must be administered either by an intravenous drip or by multiple injections. From available statistics the incidence of arsenical encephalopathy with this dosage is about 1 per cent. The incidence of deaths in reported series has been about 0.3 per cent.

In the hope of lowering this incidence of serious reactions in 1940 at Bellevue Hospital, we decided to combine fever with mapharsen. This was done originally with the intention of killing two birds with one stone. We hoped that fever would protect patients against toxic reactions and that it would enable us to achieve good therapeutic results with a lower total dosage of mapharsen. As far back as 1923, Kyrle<sup>10</sup> suggested that fever decreased the toxicity of arsenical drugs. In 1940 de Krief and Simpson<sup>11</sup> made the same assertion. Our own experience with the intensive use of mapharsen following malaria in cases of neurosyphilis led us to believe that fever might protect patients against arsenical reactions of the cerebrospinal axis.

Actual experience with fever combined with intensive mapharsen therapy in early syphilis failed to confirm the impression that fever protects against reactions to arsenical drugs, nor have we been able to prove that fever has any protective effect against the toxicity of mapharsen in rabbits. Dr. Goldstein and his coworkers in the New York University College of Medicine have run large series of rabbits, giving the same amount of drug in daily injections to controls and to rabbits with induced fevers. Fever failed to protect the rabbits that were given toxic doses.

We have proved to our satisfaction, however, that by combining fever with mapharsen the same therapeutic results can be achieved with about half the total amount of mapharsen that is required when fevers are not used. At Bellevue Hospital we have now treated 1,280 patients with early syphilis with various methods of rapid therapy. Over 950 of these have been treated with some combination of fever and mapharsen.

Fever was induced in 890 cases by the intravenous injection of typhoid vaccines.

Two injections of vaccine were usually given on the days when fever was desired. It is true that typhoid vaccine is not an ideal pyrogenic agent, but in a busy service it has proved the most practical means available of inducing fever when patients are receiving mapharsen as well. With this treatment the patients suffer from varying amounts of discomfort, but in our entire series of cases no serious accidents attributable to the use of typhoid vaccines occurred.

Our present plan of treatment, adopted since our latest report, 12 consists of ten daily injections of about 0.06 Gm. of mapharsen combined with fever induced every other day by typhoid vaccines. Thus each patient receives about 0.6 Gm. of mapharsen and 4 fevers in a ten-day period. This plan of therapy has been in effect since July, 1942, and so far has proved very satisfactory. It is interesting, though by no means statistically significant, that the highest percentage of patients achieving satisfactory results after one year or more of observation occurred in a group which received 4 fevers induced by typhoid vaccines and only 0.54 Gm. of maphar-The number of treatment failures among patients receiving less than 0.8 Gm. of mapharsen alone was significantly higher than it was when fevers were combined with even smaller total dosages of mapharsen, 22 and 14 per cent, respectively.

Thus our experience confirms the earlier evidence that fever is an important aid in the therapy of early syphilis. The fact that relapses were no more common among patients who had rather poor fevers with typhoid vaccines than among those who had temperatures up to 106 F. suggests that it is not the height of the temperature alone that influences the eradication of the syphilitic infection. This may be another argument in favor of the theory that it is the physiologic effect of fever in the host which is more significant than the direct effect of high temperatures on the spirochete. That this is not due to the action of foreign protein is suggested by the fact that electropyrexia when combined with mapharsen produces as good or better results than fevers induced by typhoid vaccines.

# The Effect of Combined Fever and Intensive Mapharsen Therapy in Neurosyphilis

That fever permits a more intensive and briefer course of chemotherapy in the treatment of neurosyphilis than is generally realized has been proved by our experiments in the rapid treatment of active neurosyphilis at Bellevue Hospital. As previously reported<sup>13</sup> our plan of therapy in neurosyphilis includes 8 fevers induced by malaria or electropyrevia followed by ten daily injections

temperatures, however induced, increase the oxidative process of the body. Less is known about the physiologic effects of fever in altering tissue reactions. For example, whether high temperatures influence the reticulo-endothelial system to any significant degree is still questioned.

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It is quite probable, however, that elevation of the body temperature has other more significant effects than the increase of metabolism.

When we turn to the immunologic and the physiologic changes caused by the introduction of fever-producing infections and foreign proteins, we are still more in the dark. Speculation is of little value on this point until our understanding of the physiology of cells and immunology in general is increased.

Recent reports of the beneficial results of fever induced by physical means seem to indicate that hyperthermia alone is able to produce physiologic changes which enable the body to combat the syphilitic virus, or else we must assume that S. pallida are injured solely by the direct effect of the increased temperature. As will be seen later, this latter assumption is subject to considerable doubt. Until recent years most authorities favored the use of malaria in the treatment of neurosyphilis partly because of the impression that the malarial plasmodia had other beneficial effects in overcoming the syphilitic virus than the mere production of high fevers.

There is no proof that this is true in any way, but it is still too early to jump to conclusions about the relative merits of malaria and mechanically induced fever in the treatment of neurosyphilis.

More accurate information on this point is needed than is now available. Not only must we have large series of comparable cases treated similarly, except for the manner in which fever is induced, but we must also have commonly accepted scientific criteria for evaluating the results of therapy before we can adequately compare different types of fever therapy which are already known to be of benefit. The formulation of criteria for evaluating treatment in neurosyphilis is easier than in cardiovascular syphilis or late latent syphilis because of the aid accorded by spinal fluid examinations. Until we make the most of the various spinal fluid tests which should be easily available, the evaluation of therapy in neurosyphilis will continue to be largely subjective rather than scientific.

There is no question, however, that fever produced by any means that is tolerated by the patient has a beneficial effect in the treatment of syphilis. The explanation of this fact awaits further enlightenment.

# Experimental Data on the Spirocheticidal Effect of Fever

It has long been an accepted fact that it is easier to cure syphilis in the early stages than later on. Consequently, if prolonged fever at temperatures which are reasonably safe to the patient fail to kill all the spirochetes in primary and secondary syphilis it is unlikely that it will do so in the late stages of the disease. Boak, Carpenter, Jones, Kampmeier, McCann, Warren, and Williams<sup>5</sup> found that temperatures of 41 to 41.5 C. prolonged for nine to fifteen hours caused rapid healing of primary and secondary syphilitic lesions but failed to prevent relapses. Furthermore, darkfield examinations of serum from the lesions remained positive in 3 of their 8 cases for fifty-three hours, four days, and five days, respectively.

Thus in almost 40 per cent of their small series of cases even the spirochetes in surface lesions were not killed immediately by the direct effects of the higher temperature. Because the syphilitic lesions healed and the darkfield examinations finally became negative, we must assume that the fever either increased the resistance of the host to the spirochetes or directly injured them so that most of them died over a period of days after the fever. Those which survived apparently became dormant only to begin to multiply again within 3 to 6 weeks as shown by mucocutaneous relapses with darkfield positive lesions.

Thus it is apparent that a single session of fever prolonged to the point of tolerance by the patient will not kill all the spirochetes in humans with early syphilis and does not always cause prompt destruction of spirochetes even in surface lesions.

Experimental work has shown that prolonged high temperatures are more successful in curing early syphilis in rabbits than they are in human beings, but even in rabbits such treatment is effective in only a small percentage of cases. Boak, Carpenter, and Warren<sup>6</sup> reported successful cures of early syphilis in rabbits with a single session of six or seven hours of fever in only 4 of 38 rabbits treated. They found, however, that when subcurative doses of arsenical drugs were combined with only three or four hours of fever. 42 out of 43 rabbits were cured. In man, Richet and Dublineau, in 1933 and Simpson, in 1935, found that when fever was combined with relatively small amounts of arsenical drugs early Eagle's8a experiments syphilis could be cured. with the spirocheticidal action of arsphenamines in vitro lend at least partial experimental support to the clinical observation that increased temperature enhances the therapeutic effect of antisyphilitic arsenical drugs.

proved a relatively safe therapeutic procedure at Bellevue Hospital, where the shortage of nurses precludes much individual attention to patients. Malaria should not be attempted in patients with cardiac decompensation but if there is no circulatory failure even cases of aortic insufficiency can be given malaria without undue danger, provided the patient is in good physical condition otherwise. Fever should not be attempted in patients with tuberculosis.

The use of electropyrexia in our experience is relatively safe provided fevers of over 105 F. are not prolonged beyond five or six hours. The risk of temporary but dangerous kidney damage, expecially when mapharsen is given during the fever, is considerable when high temperatures are prolonged beyond six hours. In a series of 48 cases of early syphilis treated over a twoday period with two injections of about 0.06 Gm. of mapharsen during the first day and seven hours of electropyrexia the following day, with two additional injections of 0.06 Gm. of mapharsen, 4 patients developed an acute nephrosis with uremia lasting over a period of from ten to twenty-one days. An additional 4 developed severe azotemia without fixed specific gravities of the urine. There are practically no reports of this particular complication in the literature of artificially produced fever alone, but from personal communications there is reason to believe that it has occurred. Certainly the combination of mapharsen with prolonged electropyrexia has proved so hazardous with us that it has been completely abandoned. When fevers produced by physical means are not prolonged over five hours, we have observed no noteworthy kidney damage, even when mapharsen was given with the fever.

#### Conclusions

Fever is a valuable adjuvant to chemotherapy in early syphilis and neurosyphilis.

There is reason to believe that it can be equally effective in all types and stages of syphilis where there are no contraindications to its use.

It should be used in all cases of syphilis that prove resistant to chemotherapy unless there are contraindications to its use.

The combination of mapharsen and electropyrexia at temperatures at 105 F. or over for a period of more than six hours may result in a temporary acute nephrosis.

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# BASIC ENGLISH IS FOUND NO GOOD FOR BASIC FOLK

Basic English is not suited to the needs of the average person who wants to converse with men and women from other lands, according to Miss Elaine P. Swenson, former director of the New York office of the Language Research Institute.

Miss Swenson, who spoke to the group of teachers attending the tenth annual language conference at New York University, said "attempts to use Basic English in teaching non-English-speaking residents of Hawaii and the Philippines had failed." They were still unable to understand the English spoken by the Americans they came in contact with.

Miss Swenson believes that a person with an I. Q. of less than 120 cannot use Basic English successfully. Because of its limited vocabulary, she explained, most of the 850 words in Basic English must have more than one meaning. average person, she pointed out, is incapable of distinguishing just what is meant.

# DIGESTIVE DISORDERS IN COMBAT AREAS

From experience with 200 patients admitted to a large hospital in the South Pacific because of "dyspepsia," Capt. Alexander Rush, Medical Corps, Fifty-Second Evacuation Hospital, reports in the Journal of the American Medical Association for October 23 that "from a medical point of view the selector who on the besie of his Army coners." selectee who on the basis of his Army general classification test gives indication of being a poor risk has been so proved while under the stress and strain of field conditions in the combat area.

Fifty-three per cent of the patients were found to have functional disturbances of the digestive tract. No organic basis for their distress could be demonstrated. The greater number of these patients were in grades IV and V (slow and very slow learners) in the Army general classification test. This bears out the impression that digestive disturbances of the functional type are seldom seen among bright, alert, well-integrated persons, Captain Rush says .- Illinois, M.J.

of 0.06 Gm. of mapharsen. No further treatment is given unless the spinal fluid of patients shows the presence of increased cells or protein six months after treatment. The full report of the results achieved by this shortened treatment must await a more extended period of observation, but it can already be said that of a total of 194 patients treated in this manner and followed for from six months to three years only about 15 per cent had to be retreated or permanently institutionalized.

It is, of course, true that the more advanced the destructive process in the central nervous system the less clinical improvement can be expected from any therapy. But even in cases with marked mental deterioration or degenerative changes in the spinal cord, the active syphilitic process in the central nervous system as shown by spinal fluid studies can usually be checked by 8 fevers followed by 10 daily injections of 0.06 Gm. of mapharsen. These results not only agree with the well-established effectiveness of fever in all types of neurosyphilis but they prove that relatively intensive and brief chemotherapy immediately following fever is as effective, if not more so, than many months of conventional routine treatment with tryparsamide or bismuth and trivalent arsenical drugs following fever.

Clinical improvement may follow treatment of neurosyphilis with fever alone, as is true in early syphilis, but if relapses are to be prevented, additional chemotherapy is required. The sooner mapharsen is used after fevers and the more intensively it is given, the better the results are likely to be. When fevers are induced by mechanical means, mapharsen can be given with the fever and on intervening days. When malaria is used, arsenical drugs must be withheld until the fevers are stopped because they have an inhibiting effect on the malarial plasmodia.

# The Use of Fever in Late Syphilis with Negative Spinal Fluid

Very little statistical data are available as to the effect of fever in late latent or other types of late syphilis with negative spinal fluids. There is every reason to believe, however, that it should be as effective in such cases as it is in neurosyphilis. Kaplan,14 in November, 1939, inaugurated a long-range program in the rapid treatment of late syphilis among the inmates of New York State prisons. Some of his patients with late latent syphilis have received combined fever and mapharsen therapy. The results of this experiment cannot be evaluated for at least several more years. It is unreasonable to expect rapid reversal of serologic tests in late syphilis even though the infection is cured. It is well-known that it may take five years for a

positive spinal fluid Wassermann test to become negative after the completion of successfully treated neurosyphilis. The same is true of the blood tests for syphilis which may remain positive for an even longer period of time in some I have now accumulated a small series of 12 cases of late latent syphilis treated for two years with routine chemotherapy where blood Wassermann tests which were obtained periodically became negative from two to four years after the completion of therapy. There is no reason to believe that treatment prolonged for over two years would have hastened the reversal of the serologic tests in these cases. Thus late cases of syphilis that are treated intensively with combined fever and chemotherapy must be followed for a number of years before the effect of treatment can be even approximately evaluated.

As a rule syphilitic gummas of the skin are easily healed even with bismuth. Therefore, it is not surprising that they respond well to fever. A syphilitic manifestation like interstitial keratitis frequently responds very poorly even to intensive chemotherapy. Fever can be of great aid in the treatment of such cases. At Bellevue Hospital we recently treated a girl, 13 years of age, who had severe interstitial keratitis of the left eye which developed after chemotherapy had been instituted. We gave her a course of 8 malarial fevers, only to have the other cornes become affected. She was then given a course of mercury inunctions with no appreciable improvement, after which she was rehospitalized and given 8 fevers induced by physical means combined with intensive mapharsen. This produced dramatic improvement. Other cases of interstitial keratitis have responded well to a single course of 8 malarial fevers followed by intensive mapharsen.

# Risks Involved in Fever Therapy

Malaria is surprisingly well tolerated in most cases, even by patients who are debilitated and poorly nourished. It is not without its risks, however, and the incidence of deaths has been as high as 12 per cent in some institutions where it has been used extensively. The longer the course of fevers the greater the risk. Dattner15 has shown that 8 fevers will produce as good results in neurosyphilis as more prolonged courses and the risks to the health of the patient increase with the number of fevers. Consequently, it is a mistaken policy to prolong the course of fevers beyond 8 or 9. Even so, occasional instances of jaundice, usually hemolytic, will be encountered, and poor nursing care may result in pneumonia when patients become chilled during the profuse sweats which follow the fevers. On the whole, however, malaria has

life of the individual who may be, at the moment, a patient under treatment. It is employed as a remedy; i.e., (a) to mitigate symptoms (local and general), (b) to shorten the duration, and (c) to diminish progression, extension, and sequelae. It seems to be useful in all these categories.

A report on the first 60 cases was prepared and filed in the office of a medical society, but withheld from publication for over a year because of the importance of the matter, the lack of any important parallel of results in the literature, and the general doubt, shared by the writer, of the values of any vitamin as a remedy in this field. During this time, although no duplication of the method has appeared as yet, parallel data have been presented and the results of personal experience continue to confirm the original observation.

## Rationale and Results

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The initial reason for the use of vitamin A was the personal observation that the visual afterimages were sometimes markedly increased just before prodromal symptoms of a cold (sneezing, notice of drafts, psychokinesia) appeared. This was noted in a study of dark adaptation for military purposes which involved the development of a quick, practical, office method for the estimation of visual purple efficiency. It seemed possible, therefore, that an oncoming cold might be foreshadowed by a reduction of visual purple efficiency, which, in turn, might be due to a vitamin A deficiency or an impairment in vitamin A utilization. It seemed worth while to try the use of large doses of vitamin A to see whether or not oncoming colds might be prevented. cordingly, vitamins A and D as they occurred in rod-liver oil concentrate were given to a series of patients who had had recurrent colds for years and who knew the preliminary symptoms. It seemed to be helpful. The routine was also employed in cases in which the cold was fully and unmistakably established. The results were still good. Many patients learned to look for a "cure" within twenty-four hours. The routine was also tried in acute sinusitis and bronchitis, the results of which will be referred to later.

It seemed, however, that the most favorable results were obtained by the employment of this routine in the prodromal stage; next, in the early course of acute illness; and last, in the course of chronic illness. The most striking results, however, were obtained in well-established, acute colds that, in 30 per cent of the patients, appeared to be "cured" in less than twenty-four hours.

The reason for using a large dose on the first day, a smaller dose on the second day, and a medium dose on the third day is as follows: A

large dose, 150,000 units of A, was used for "shock" effect. This is an old but until recently a little-noted principle in medicine. It has the nature of a surprise attack, obviating the "tolerance to remedy" occasionally generated by initial small doses. No proof of the validity of this theory is offered. However, it works. No harm results. Moreover, the initial dose has recently been stepped up in secondary trial routines. An initial dose of 2,000,000 units of vitamin A has been suggested.

The second day's dose was lowered to 50,000 units of A in accord with another principle sometimes employed in medicine: that of rhythm or alternation of remedy, commonly employed in cystitis (in change of urinary pH) and in endocrinology.

The most characteristic result is a rapid decrease of both local and general symptoms. In twenty-four hours, sneezing, composition, discovered fort, pain, and discharge sometimes abate or disappear entirely. General malaise, fever, and pain may decrease markedly. The patient may then feel entirely well, especially if the cold is not a severe one. The approximate status at the end of twenty-four hours of treatment of ordinary uncomplicated colds is as follows:

	Number	Percent-
	of Cases	age
"Cured"	34	30.3
Almost cured	58	51.8
Better	11	9.9
No change	6	5.3
Worse	3	2.7
	112	100.0

There was a tendency to recurrence of symptoms and a resumption of the cold at the end of the next twenty-four hours. This would most frequently occur if the patient resumed his ordinary course of life, exposed himself, and acted as if he were quite well again.

This occurred in a case reported by Leak.<sup>1</sup> A fish peddler had influenza. He was given a large dose of vitamin A hypodermically. He was "well" the next day and, against orders, resumed his occupation of selling fish. The third day he was quite as sick as before.

This recurrence was commonly prevented in the writer's series of cases by ordinary caution and the use of one-third of the initial dose on the second day and two-thirds of the initial dose on the third day.

In about half of the patients who report themselves cured in twenty-four hours, there is a fair return to symptomless bodily vigor. In 30 per cent of them there is a period of vague discomfort for a few days. "It seemed as if the cold con-

# VITAMIN AID IN THE TREATMENT OF COLDS

# A Preliminary Report

C. WARD CRAMPTON, M.D., New York City

# Colds Cause Damage

To the physician who gives health examinations, and cares for his patients in health and illness year after year, the common cold presents a persistent problem. Both treatment and prevention are necessary. This paper is on the subject of treatment. Colds often cause disability and damage and predispose to further illness. For many persons they constitute a major life problem. They diminish national efficiency. At the rate of three colds a year for the average American, there are 400,000,000 for the nation! there is an average of two days lost from work and 50 per cent loss of efficiency for two days more, there is a national annual loss of 1,200,000,-000 work days a year. One can only conjecture as to the average decrease in life efficiency, impairment of happiness, increase in other illnesses. and abbreviation of life which may result from colds.

# Colds Vary

The term "cold" must be clearly understood. It is, however, difficult to define because it refers to a group of upper respiratory illnesses which are most diverse in character. One outstanding characteristic of colds is their variability. They vary in severity from a day of simple nasal turgescence and rhinorrhea to weeks of local congestion, pain, inflammation, with general symptoms of fever and prostration, which may be followed by a longer period of bronchitis or sinusitis. Colds vary (1) in the character of onset, (2) in prodromal symptoms, (3) in the locality of the first symptom, and (4) in their general course.

Epidemic and endemic colds may, however, occur and maintain their typical characteristics as they propagate themselves. For example, a wave of colds may strike New York City and sweep through the population. A recent epidemic began with a "dry throat," and continued with fever and prostration, which was followed by a mild or severe bronchitis. It affected 5 to 10 per cent of the population-and as much as 75 per cent of a single office personnel. This epidemic followed its course through the City and then died out. This was followed in sixty days by a second wave of epidemic colds, which began with sneezing, nasal congestion, and a watery discharge, followed by yellow pus. It proceeded, in many cases, to sinus infections with staphylococcus predominating. Meanwhile, New York

City supplied scattering cases of a variety of endemic colds with micrococcus catarrhalis predominating, or grippe, or colds with streptococcus predominance with their characteristic but divergent symptoms. This process has been repeated year after year with unpredictable variations. It might be studied further with profit.

With this diversified character of colds-epidemic, endemic, or casual—any one remedy presented finds itself confronted with a protean enemy as varied in its weapons and choice of attack and terrain as a modern well-equipped army. They all, however, have two common factors: involvement of (1) the mucous membrane of the upper respiratory tract, and (2) the underlying service of supply of the rest of the body upon which the mucous membrane is The presentation of a treatment dependent. under discussion (not a "cure") for colds is, therefore, made with these facts in mind and insisted upon. But it may be confidently stated to have been of use to some people, some of the time. It has been of definite service, however, for more than 103 persons who have used it for more than a year, of whom 32 have employed it for more than two years. They have reason to believe in its efficiency.

The writer has continued its use. Favorable data accumulate, and there is in plan or in process a more extended research, observation, and record in the diverse, closely related clinical and scientific fields. This report is confined, however, mainly to a simple statement of clinical results of three years of experience, with a few references to the more pertinent data from the vast and various related fields of research.

# Remedy and Dosage

The original routine used (begun in 1940 and still continued for the majority of cases) calls for 150,000 units of vitamin A with 15,000 of vitamin D as cod-liver oil concentrate the first day, divided into three equal doses. (The use of other split or synthetic vitamins A and D are not reported upon at this time.)

The second day, 50,000 units of A and 5,000 of D are taken. If any symptoms remain, the third day 100,000 of A and 10,000 of D are taken. The routine may be repeated, but the further continuance of the remedy is very seldom employed and seldom reported on by patients. This prescription is never given alone. It is only an element in a program of management of the

life of the individual who may be, at the moment, a patient under treatment. It is employed as a remedy; i.e., (a) to mitigate symptoms (local and general), (b) to shorten the duration, and (c) to diminish progression, extension, and sequelae. It seems to be useful in all these categories.

A report on the first 60 cases was prepared and filed in the office of a medical society, but withheld from publication for over a year because of the importance of the matter, the lack of any important parallel of results in the literature, and the general doubt, shared by the writer, of the values of any vitamin as a remedy in this field. During this time, although no duplication of the method has appeared as yet, parallel data have been presented and the results of personal experience continue to confirm the original observation.

### Rationale and Results

The initial reason for the use of vitamin A was the personal observation that the visual afterimages were sometimes markedly increased just before prodromal symptoms of a cold (sneezing, notice of drafts, psychokinesia) appeared. This was noted in a study of dark adaptation for military purposes which involved the development of a quick, practical, office method for the estimation of visual purple efficiency. It seemed possible, therefore, that an oncoming cold might be foreshadowed by a reduction of visual purple efficiency, which, in turn, might be due to a vitamin A deficiency or an impairment in vitamin A utilization. It seemed worth while to try the use of large doses of vitamin A to see whether or not oncoming colds might be prevented. Accordingly, vitamins A and D as they occurred in cod-liver oil concentrate were given to a series of patients who had had recurrent colds for years and who knew the preliminary symptoms. seemed to be helpful. The routine was also employed in cases in which the cold was fully and unmistakably established. The results were still Many patients learned to look for a "cure" within twenty-four hours. The routine was also tried in acute sinusitis and bronchitis, the results of which will be referred to later.

It seemed, however, that the most favorable results were obtained by the employment of this routine in the prodromal stage; next, in the early course of acute illness; and last, in the course of chronic illness. The most striking results, however, were obtained in well-established, acute colds that, in 30 per cent of the patients, appeared to be "cured" in less than twenty-four hours.

The reason for using a large dose on the first day, a smaller dose on the second day, and a medium dose on the third day is as follows: A

large dose, 150,000 units of A, was used for "shock" effect. This is an old but until recently a little-noted principle in medicine. It has the nature of a surprise attack, obviating the "tolerance to remedy" occasionally generated by initial small doses. No proof of the validity of this theory is offered. However, it works. No harm results. Moreover, the initial dose has recently been stepped up in secondary trial routines. An initial dose of 2,000,000 units of vitamin A has been suggested.

The second day's dose was lowered to 50,000 units of A in accord with another principle sometimes employed in medicine: that of rhythm or alternation of remedy, commonly employed in cystitis (in change of urinary pH) and in endocrinology.

The most characteristic result is a rapid decrease of both local and general symptoms. In twenty-four hours, sneezing, congestion, discomfort, pain, and discharge sometimes abate or disappear entirely. General malaise, fever, and pain may decrease markedly. The patient may then feel entirely well, especially if the cold is not a severe one. The approximate status at the end of twenty-four hours of treatment of ordinary uncomplicated colds is as follows:

	Number	Percent-
	of Cases	age
"Cured"	34	30.3
Almost cured	58	51 S
Better	11	9.9
No change	6	5.3
Worse	3	2.7
	112	100.0

There was a tendency to recurrence of symptoms and a resumption of the cold at the end of the next twenty-four hours. This would most frequently occur if the patient resumed his ordinary course of life, exposed himself, and acted as if he were quite well again.

This occurred in a case reported by Leak.¹ A fish peddler had influenza. He was given a large dose of vitamin A hypodermically. He was "well" the next day and, against orders, resumed his occupation of selling fish. The third day he was quite as sick as before.

This recurrence was commonly prevented in the writer's series of cases by ordinary caution and the use of one-third of the initial dose on the second day and two-thirds of the initial dose on the third day.

In about half of the patients who report themselves cured in twenty-four hours, there is a fair return to symptomless bodily vigor. In 30 per cent of them there is a period of vague discomfort for a few day. "It seemed as if the cold continued hidden and symptomless." In the remaining 20 per cent there is a feeling of subnormality which may be marked. In a very few of these the "cold" has been resumed, but not with its initial severity. In the beginning, in all cases a routine of customary (and other) local and general treatment was carried out. As experience accumulated, these precautions were relaxed in part, but never abandoned.

#### Vitamin A

There are reasons, clinical, academic, and scientific, which prompted the thought that vitamin A might be of value as a remedy in acute illness, and later tended to confirm it, despite the fact that the use of vitamins had been generally disappointing in prophylaxis.

At this point brief references to some aspects of vitamin A might be of interest and serve the cause of clarity.

Vitamin A is one of the oil-soluble vitamins. The others are the various forms of vitamin D and the several tocopherols. At present there are reported to be three forms of vitamin A—alpha, beta, and gamma. There are also three forms of carotene, the vegetable precursor. In addition, there are nine related carotenoids. The main forms of vitamin A are C<sub>20</sub>H<sub>21</sub>OH, present generally in the livers of salt-water fish; C<sub>22</sub>H<sub>31</sub>OH, in fresh-water fish [Mutatis mutandis].

This diversity of basic constitution may be in part responsible for the astonishing diversity of reported results of the use of these vitamins.

Vitamin A is available in capsules of up to 25,-000 units for oral use. It is presented with vitamin D (natural or synthetic) in tablet or capsule, also in association with other vitamins. preparation used in this work is a cod-liver oil concentrate which may be purchased in open market. Vitamin A for hypodermic use is not generally available. Vitamin A alone and with carotene for topical application to nose and throat is not yet generally commercially available in this country. In clinical office conditions the writer uses it in three forms, provided by the cooperation of three well-established pharmaceutic organizations. Our experience in the use of carotene and vitamin A to date indicates that (1) it nauseates most patients; (2) it acts as a dye: it will stain the skin, and the mucous membrane may retain the stain for thirty-six hours; (3) our preliminary results in acute and chronic nasopharyngeal conditions are somewhat encouraging and more extended trial will be given.

In this connection medical literature was searched for reports on the use of vitamin A or carotene for infections of the nose and throat. The use of cod-liver oil on the skin as an ointment is fairly well known. A paper by Levinson and

Gabrilovich<sup>2</sup> in a Russian journal was brought to light.

They report on 100 cases in city hospitals, with a similar control group. They were treated by inhalation alone, instillation alone, or the two combined. The control group were treated with aspirin, etc., and standard local medication. In the treated group, symptoms of congestion, discharge, headache, and cough were mitigated. Ninety per cent were cured in the first three days, against seven days for the control groups. Recurrences were less common. The authors believe that carotene acts locally and generally as well.

Freyre<sup>3</sup> reported favorable results from the use of vitamin A oil solution given intranasally (5 drops three times daily) to children with more or less chronic coryza. Freyre believes that the results were very good. Reporting that "The treatment was completely successful in 18 out of 41 cases," he states in effect that "the favorable effect can probably be explained by the protective action of the vitamin A on the epithelium. It can be employed pure or in combination with small doses of vitamin D. Before treatment, it is essential to determine the cause; syphilis, tuberculosis, spasmodic rhinitis, or 'nasal asthma,' and, of course, treat the same." Disregarding these cases, there still remain a large number of children with chronic nasal catarrh. For these the author recommends the local application of vitamin A.

#### Vitamin D

Vitamin D was included with vitamin A originally for three reasons: (1) convenience; (2) the occurrence in cod-liver oil of vitamin A and D together in a proportion of 10 to 1, and the well-known service of cod-liver oil in medicine suggested that there might be a synergy of significance; (3) no valid objection appeared.

Subsequently some work tending to provide confirmatory evidence has appeared. Spiesman administered large doses of the vitamins A and D individually, as well as in combination, to a group of selected patients for three consecutive winters and concluded that "Vitamins A and D in massive doses do not produce immunity to the common cold when given separately. When massive doses of vitamins A and D were given together, 80 per cent of the subjects showed a significant reduction in both the number and the severity of common colds."

Vitamin D as well as vitamin A is a factor in successful treatment of nyctalopia and retinitis pigmentosa, according to A. A. Knapp,<sup>5</sup> Commander, (MC), USNR. More research work on the value of association of oil-soluble vitamins (including the tocopherols) in medicine will be

looked for with great interest. The meager record of the day tends, however, to support the purely theoretic initial approach and the resulting clinical record with respect to use of the natural combination. The use of carotene alone, combinations of carotene and vitamin A, the combination of these with vitamin  $D_1$ , 2, 3 and tocopherols, and the use of much larger doses of vitamin A are in process or plan.

### Other Diseases

Hypertension.—Vitamin A has been offered as a remedy in hypertension by Govea Pena and Villaverde<sup>6</sup> and Walkerlin, Moss, and Smith.<sup>7</sup>

Tuberculosis.—Harris and Harters suggest vitamin A in treatment of night blindness and vitamin A deficiency in pulmonary tuberculosis.

Fifty-three per cent of 197 tubercular patients were physiologically deficient in vitamin A by biophotometric tests, according to Getz, Hillebrand, and Finn.<sup>9</sup>

Whooping Cough.—Rats recover from pertussis if receiving vitamin A, according to McCoord, 10 University of Rochester. McCoord in a personal communication states: "We find that whooping cough and almost anything that produces fever appears to destroy vitamin A in the body. We therefore suggest that persons suffering from such diseases be given extra vitamin A if their illness is long continued."

These observations suggest a tendency toward the possibility of defining the specific service of vitamin A as a remedy.

#### Vitamin B Factor

Certain trends in research lead one to suspect that the vitamin B series, in whole or in part, may under certain conditions render a disservice to man. This may have a relation to colds and a possible disharmony in the balance of water-soluble versus oil-soluble vitamins. Bacteria, especially the streptococci, seem to need selected vitamins, just as man does. There is much in literature on the subject of the food requirements of bacteria and their use in vitamin assay.

On the virus side of the picture we find that Bloomfield and Lew<sup>11</sup> report that rats on normal diet are normally susceptible to ulcerative cecitis, a virus infection. B-complex-deficient rats were practically immune.

Sprunt<sup>12</sup> found resistance to vaccine virus in undernourished rabbits definitely higher. These and related facts are worthy of attention. At any rate, it is our practice in this field at this time to stop all auxiliary vitamin B supply during a cold, and also during treatment of certain related disorders.

### Summary

- 1. Cod-liver oil concentrate, corresponding to 150,000 units of Vitamin A and 15,000 of D vitamin as an initial dose in twenty-four hours and decreased doses thereafter, has been used in acute colds with the result that in 81 per cent of the cases treated the cold is "cured, abated, or favorably modified."
- 2. No data are here given on the cognate subject of cold prevention and no conclusions related thereto are presented at this time. Nevertheless, many persons have in a manner avoided colds by consistently stopping them in their prodromal stage.

The remedy appears to do no harm. It is recommended for general clinical trial and direct and indirect scientific research. Much of this is under way, especially in the field of direct application of vitamin A and carotene to the affected mucous membrane. The author warns against the interpretation of this report as a presentation of a "cure" for colds and calls attention again to (1) the great diversity of colds, (2) the need of a corresponding intelligent diversity of treatment, and (3) the advisability of the study and recognition of the epidemic nature of colds.

Four things should be considered in the treatment of colds.

This article refers to one, and one only. Any cold treated with this consideration (or any other single consideration) only in mind is improperly treated. It is inevitable that, in spite of what anyone can say or do, persons will proceed to use this vitamin aid in the treatment of colds alone and will neglect other considerations, and will, therefore, upon failure, declare it useless and blame others for their own error or misfortune.

There are at least four considerations in the treatment of any cold:

- 1. The infecting agent—that it be killed or rendered static (local remedies, argyrol, sulfathiazole, are commonly employed and gramicidin is next for trial).
- 2. The mucous membrane—that it be rendered more resistant to infection. It is possible that the present remedy gives aid in this manner.
- 3. The anti-infection agents developed by the body (vaccines are employed to aid this process).
- The body's physiologic processes of digestion, nervous, and circulatory control, etc.

These four factors are like the four legs of a chair. There are other considerations, possibly even more essential. Perhaps more patient, alert search will fully reveal them.

### Case Reports

This report is based upon the cumulative experience of a large number of cases, of various charac-

teristics; while the results range widely in course and outcome, certain patterns are commonly repeated. The following cases will serve as illustrations.

Case 1-Mrs. J. M. had severe winter colds for thirty years. For ten years, her sinuses, especially the left antrum, were regularly infected. Colds would last fourteen to sixteen days. Three years ago she started vaccine and other prophylactic treatment, which moderated the severity of the colds; their duration remained the same; sinus complications decreased, prostration and fever somewhat diminished.

She started routine number 1 in January, 1942, but found it unnecessary to take more than the first one or two doses of 50,000 units of vitamin A and 5,000 of vitamin D. Seasonal vaccine has been continued. The patient takes 50,000 units of vitamin A and 5,000 of vitamin D immediately upon observing the customary lifelong symptoms of oncoming colds. These are stated to be nose irritation, throat irritation, a "headachy," general unpleasant feeling, and the left antrum begins to hurt. These symptoms commonly occur only after a period of overwork or moderate indulgence or both.

The treatment has been successful. There have been no colds for two years. The general condition has improved. Chronic colitis symptoms, previously troublesome, have become quite uncommon, and recur only after marked indiscretions in diet. There has been a marked increase in the patient's margin of work and a marked decrease in restric-

tions of diet and "hygienic" precaution.

Case 2—Miss M. P., aged 48, for ten years has been under general health direction; she reported first in 1932 for colds, headaches, and sinusitis. She suffered regularly from four to six colds during the winter and two severe colds during the sum-

Routine forms of constitutional and local prophylaxis were given-i.e., vaccine, tonics, cod-liver oil concentrate, regulation of diet, intestinal toilet. The colds decreased one-half in incidence and were partly relieved by treatment-i.e., tampons of argyrol, ephedrine, and, more recently, sodium sulfathiazole, 5 per cent solution (aqueous).

In December, 1942, she was given routine number 1. During the winter she had the usual attacks of oncoming colds, but five times she "tossed it off" with one day's treatment. She had the best winter in a decade. Colds appeared to be stopped within twelve hours after the beginning of the treatment. Her success attracted a great deal of attention among the other teachers of the school where she taught, and she developed a large following for this routine of treatment.

The results are reported to be generally excellent except for those who are nauseated by the idea of cod-liver oil. An important fact is that this patient went through "the best winter she ever had" and suffered less from intestinal illness, fatigue, headaches, etc. Some of her associates found it to be noticeable that she was "stronger, younger looking, and more vigorous." This, of course, may be purely incidental, but it does indicate that she suffered no apparent ill effects from this form of treatment.

Case 3—Mrs. H. W. Van S., aged 30, made a rapid recovery from sinusitis. She had been pregnant eight and a half months and was a primipara. She had been under general hygienic and medical care for eighteen years. She suffered from colds of a predominating staphylococcus type, two or three a year, usually mildly infecting the antra and lasting

three weeks, with little prostration. One brother had suffered from chronic sinusitis of the staphylococcus type from childhood to maturity, was sent South every winter until standard direct and indirect prophylaxis and treatment favorably modified the condition and he was able to finish preparatory school and college in the North. A sister suffered from mild, chronic staphylococcus pansinusitis following colds, which was modified by treatment. Another brother had mild colds regularly, with yellow pus.

The patient had been away from routine care for three years. She returned for treatment because she was suffering from severe antrum sinusitis, with a discharge of yellow pus, staphylococcus showing in the urine, a temperature of 103 F., malaise, facial pain, and headache. These symptoms had lasted ten days. The patient expected to be delivered of her first child in seven to ten days.

Her sinuses were treated with standard direct and indirect methods, and routine number 1 was followed. In fifteen hours, her temperature was normal, and her left sinus was slightly cloudy on transillumination and producing no pus. General symptoms abated. Normal delivery followed seven days afterward.

Case 4-Mr. L. F. H., aged 68, was a patient under general hygienic and medical care and observation since his initial health examination nineteen years ago. He had averaged five to six calls a year, until the last three years. Now he reports only at sixmonth intervals. He is vigorous for his age.

He has had no cold for three years. He formerly had two or three severe colds during the winter. They followed a standard pattern closely: one week with fever, two weeks with bronchitis, and one week more to recover. He had two or three colds of less severity during the summer. Colds were mitigated considerably in severity by vaccine treatment and hygienic measures; but he kept on schedule until routine number 1 was prescribed and faithfully followed.

The patient does not take vitamins as a routine but awaits prodromal symptoms. These are a slight sensation of sniffing and a little, indefinite headache. These symptoms, from long experience, he associates with an oncoming cold.

This patient is typical of the group who wait for prodromal symptoms. In this group, some report that, if they fail to start routine number 1 promptly and the colds "take hold," the medication does no good. Others, however, get some result-good, fair, or poor-when it is taken in the course of the cold.

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# UDDEN DEATH FROM INFECTION AND NEOPLASM

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E purpose of this presentation is to call tention to certain of the less frequent causes lden death encountered in a reasonably ac-Medical Examiner's service in Nassau ty. At the outset it is necessary to explain by sudden death one means death occurring pectedly and in a relatively short time, with presence of either few or no premonitory or symptoms to explain the findings at au-

len Death from Intrathoracic Tumors e first two cases presented here describe inoracic tumors as the cause of sudden death. in itself is relatively rare. The rarity is er increased because of the fact that both e cases occurred in children.

se 1.—J. W. B., a 5-year-old boy, who died on h 30, 1941, first became ill ten days prior to 1 with an attack of acute bronchitis and na associated with fever. Eight days prior ath he developed an erythematous rash on the and abdomen. For the week prior to death ever subsided, but his bronchitis and coughing sted. Occasionally he would have paroxysms sughing associated with dyspnea. On the day ath the child was up and around the house, and ard evening he called his mother and said he was ing. A physician was called, and arrived when shild was in extremis. He died soon after.

he essential finding at autopsy was the presence large mediastinal tumor mass that occupied entire thymic and pericardial region, extending n to the diaphragm below and up to the neck, s to infiltrate the deep cervical structures and thyroid, more especially on the left side The rior limits of the mass were firmly adherent to overlying sternum. The tumor mass consisted a pinkish-white homogeneous tissue which with little resistance, to reveal a pinkish to owish-white cut surface of soft consistency, wing an occasional localized area of greenishow necrotic tissue. Two distinctly cystic is each slightly larger than an English walnut e encountered on the left anterolateral margin he growth. The tumor mass produced distinct eroposterior compression of the walls of the chea and the main bronchi. It is noteworthy t the tracheal, bronchial, and bronchopulmonary uph nodes were readily visualized and were diste and of normal size, showing no relationship with main tumor mass. The pulmonary conus was ind to be completely surrounded by tumor sue. The ascending aorta and its arch were

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deeply buried in the tumor mass. The junction of the descending aorta and the arch was readily visualized. Section at this point showed well-marked diminution in the lumen of the arch. The spleen weighed 40 Gm. and showed no noteworthy change. The mesenteric lymph nodes were slightly enlarged and had a grossly normal appearance. A large solitary node was encountered in the gastrohepatic omentum and on section had the same gross appearance as the main tumor mass noted in the nediastinum.

The microscopic picture of the tumor was that of a lymphosarcoma of the small-cell type. The lymph node of the porta hepatis was similar in histology. Sections of the bone marrow showed hyperplasia with the presence of many cells, suggesting the morphology of the cells in the tumor. Postmortem blood smears showed no evidence of a peripheral leukemic picture.

Case 2.- A 20-month-old female infant died suddenly on August 15, 1942, while being examined in the office of a pediatrician. The following history was obtained from him. About one week previous to death it was noted that the child had a brassy cough and swollen face. At this time she was taken to her family physician, who elicited the history of a spasmodic cough of about five weeks' duration. At the time of the family physician's examination one week before death, the presence of a slight infraorbital edema was noted. At this examination the temperature was normal. Examination showed the lungs and heart to be essentially normal. The previous history is irrelevant, being that of a normal birth and normal development up to the time of the last illness. During the spring of 1942 it was noted that the child was subject to frequent attacks of infection of the upper respiratory tract. The pediatrician was further able to elicit from the family the fact that during the previous week the child had seemed unable to get her breath and got black in the face. This was worse when she was lying down, and immediately improved when the patient was put in a sitting position. As soon as the child was put on the examining table, she got black in the face and stopped breathing. Sitting up did not relieve her. She was immediately given oxygen, which caused a slight improvement in her condition. Because of the persistent respiratory obstruction, an emergency bronchoscopic examination was done, but no obstructing material was found in the airways; the child died in about five minutes following the final attack.

At autopsy a large intrapericardial tumor mass was found rising from the superior limits of the pericardium. It produced marked distention of the pericardial sac, which contained, in addition about 150 cc. of serosanguineous fluid. The tumor lay superior to the auriculoventricular junction. It showed a yellowish surface mottled with areas of

recent hemorrhage and numerous knoblike projec-The tumor measured approximately 7 by 4 by 4 cm. Its anterior surface was entirely intrapericardial. Its posterior surface extended through the pericardial sac superiorly to a point 1 to 2 cm. above the bifurcation of the trachea, producing a slight amount of compression on the left main bronchus. On section the tumor mass cut with little resistance to reveal a distinctly yellow fatty-appearing cut surface with areas of recent interstitial hemorrhage. It is noteworthy that the tumor mass encircled the pulmonary conus as well as the ascending and transverse portion of the arch of the aorta, the adventitia of which, however, showed no evidence of invasion by tumor. The tumor tissue showed no evidence of invading the auricular structure of the heart. At the junction of the superior vena cava with the left innominate vein, however, an intravascular pear-shaped mass having smooth, yellowish outer surfaces was seen lying directly in the lumen of the vessel, moored to the wall at one point by a rather slender but relatively firm attach-The tumor mass occupied the entire diameter of the lumen. The peribronchial tissue in the region of the hila of both lungs showed infiltration with tumor to the naked eye. The thymus was readily identifiable as a normal and separate mass having no connection with the tumor. other organs showed no noteworthy change.

Histologically, the tumor showed a certain pleomorphism of the cell structure. Sections taken from one area showed a completely undifferentiated collection of cells arranged in alveolar pattern and having large, oval or round, vesicular nuclei with prominent nucleoli, Mitotic activity was evident. There was no evidence of intercellular structure. Other sections taken from other portions of the tumor showed, on the other hand, a definite tendency to the formation of a lining epithelial structure on cords of mature-appearing connective tissue. Many areas showed distinct perithelial or "rosette" formation. The sections from these areas showed associated necrosis and recent interstitial hemorrhage. Other areas of tumor had distinct cleft-like spaces lined by a single layer of cylindrical cells supported on mature connective tissue showing

early hyalinization.

Sections from other areas showed well-marked evidence of interstitial edema. The histologic picture resembles a tumor of nesothelial origin, and in certain areas the features suggest the histologic

pattern of a malignant synovious.

# Comment

Certain salient facts emerge from the study of these two cases. In the first place, it shows the disproportion that frequently exists between the presence of large mediastinal masses and the evidence of respiratory distress.

The first case illustrates the possible relationship between the suddenness of death and the previous history of recent acute respiratory infection, with the likelihood that because of the circulatory changes that might have occurred in

the tumor consequent to an acute infection, increased compression from the tumor might result, which, in turn, might have led to the acute asphyxial death in the course of a paroxysm of coughing. In the second case, the death is probably easier to explain, in that it was very likely the result of a recent hemorrhage into the tumor with associated increased intrapericardial pressure leading to the mechanical effects of tamponade on the heart. The intravascular tumor growth probably played little part in the symptomatology of the case.

### Sudden Death from Infection

In this group are described three cases in which the autopsy findings explain the death in each instance as being due to infection. It is questionable whether the organisms isolated in each instance are the primary invader.

Case 1.—A 39-year-old telephone operator had been sporadically observed by her family physician for several months for gallbladder trouble. The doctor had seen her last two months prior to death. For two weeks prior to death, she had complained of pain in the lower right abdomen, and said she thought she might have a tumor. For two days prior to death, she was unable to work. On the morning of her death, her father came into the house at about 8:30 o'clock, at which time she called to him. He found her sitting on the floor of the bedroom. She said she was too weak to walk. He placed her in a chair and went next door to get his neighbor. Together, they took the patient to the bathroom where she vomited once. She was then put to bed. Her family physician was called, but on arrival found her dead.

The patient was autopsied four hours after The essential findings were in the lungs, heart, and the uterine adnexa. The lower lobe of the right lung showed, on the pleura, a local fibrinopurulent exudate over an area about the size of a silver dollar. The lung tissue immediately beneath the exudate was slightly raised, dark red, and firm. On section through this area, a homogeneous, finely granular surface was seen, the area of involvement extending for less than 1 cm. into the underlying lung structure. The diaphragmatic surface of the lobe showed multiple raised hemorrhagic lobular areas of smaller size. The pleural surface of this lobe showed widespread zones of subpleural hemorrhage. On section the bronchi were free from exudate and showed mild congestion. The larger pulmonary vessels on this side showed the presence of recent antemortem thrombi. The left lung showed well-marked atelectasis of the lower lobe, with moderate congestion of the cut surfaces, there being no areas of consolidation present.

The mitral valve of the heart showed the presence of many small, slightly raised, warty, pinkish-red vegetations which were easily removable from the valve cusps.

The pelvis was the scat of a large lobular, tense, cystic tumor mass about the size of a fetal head, lying slightly to the right of the midline. The uterus was attached to the cystic mass on its anterior surface. The tubes had lost their separate anatomic identity on both sides, each being an intimate part of the cystic mass. External examination of the surfaces showed no gross structures resembling ovaries on either side. The mass was tense and comewhat fluctuant. On section, it evacuated a large amount of thick, greenish-yellow, mucoidappearing material. On washing of the wall, the cavity was seen to be unilocular and to show the presence of multiple, raised, firm, papillary nodules, the largest about the size of a lima bean. Some of these papillary masses had undergone cystic degeneration. The wall itself showed the presence of multiple flattened cyst-like spaces containing hemorrhagic fluid. Careful section throughout the mass failed to reveal any structure identifiable grossly

Culture from one of the involved areas of the lung showed hemolytic streptococci.

Microscopic sections of the lung showed the presence of a recent fibrinopurulent exudate on the pleura. The lung tissue immediately subjacent to this showed marked engorgement of the smaller vessels and the presence of extensive intra-alveolar hemorrhage. Search of the blood vessels in the vicinity of the area of involvement failed to reveal any thrombus formation.

Sections of the ovarian tumor mass showed papillary cystadenocarcinoma of the ovary.

#### Comment

The autopsy findings in this case are rather difficult to evaluate. Unfortunately, no culture of the pelvic tumor mass was made, but from the histologic appearance of the coagulum and the cyst wall, there was no evidence of acute suppurative inflammation. The findings in the lung, by virtue of their localization to one lobe and their multiplicity in that lobe, coupled with the histologic and bacteriologic findings, might suggest an early hemorrhagic pneumonia in which the hemolytic streptococcus is the exciting agent. The presence, however, of recent antemortem thrombi in the pulmonary vessels, along with the absence of intra-alveolar fibrin deposit and cellular exudate, might be taken to suggest unusually early infarction. The valvular changes in the heart are interpreted as a form of indifferent terminal endocarditis, and certainly cannot be adduced as evidence in favor of a Streptococcus haemolyticus bacteremia.

Case 2.—The history and findings of the second case are perhaps more convincing. These deal with a 24-year-old woman, a law student, whose chief complaints were sore throat and hoarseness with dyspnea and dysphagia. The only recent previous illness was a sinus infection in 1937, with no history of colds or sore throats before or since. There is no allergic history either in the family or the patient.

The patient had a slight sore throat twenty-four hours before death, but went to college as usual. On the afternoon of that day she saw a local physi-

cian, who prescribed for the condition. At dinner, the patient complained of the sore throat, but ate normally. She retired early. During the night, the soreness in the throat became more severe, and was associated with profuse draining of mucus from the back of the nose, which she said choked her

She was seen by her family physician the next morning one hour before her death, when she complained of hoarseness, profuse draining of mucus in the back of her throat, with expectoration of a yellowish-white material, inability to swallow, and some difficulty in breathing. On examination by her physician, the patient was sitting up in bed laughing because her voice sounded so strange. At this time, she appeared in no acute distress. Examination of the nose showed a congested edematous left-middle turbinate, with moderate congestion of the right turbinate. Examination of the throat showed a red, dry pharyngeal wall. The heart rate was rapid but regular The lung showed distant breath sounds. Because of her respiratory difficulty, the patient was advised to enter the hospital. While arrangements were being made, the patient suddenly became extremely cyanotic, gasped for breath, and died in less than a minute with a tonic convulsive seizure.

Autopsy was performed four hours after death, The main findings were located in the larynx and trachea, where an acute hemorrhagic laryngotracheitis with edema of the larynx was noted. The lungs showed the presence of edema and congestion with associated intense engorgement of The organs of the neck were rethe bronchi. moved "in toto." There was marked edema present around the fauces. The lymphoid structure at the base of the tongue was distinctly hypertrophic. The epiglottis showed an intensely congested edematous surface. On opening of the larynx, a large amount of frothy blood-tinged fluid was found in the lumen. The mucosal surfaces in the region of the vocal cords were intensely engorged and had a flaming red appearance. In places, the mucosal sheen was lost, so as to give certain areas a dull red, fine, branlike appearance. In addition, many discrete and confluent petechial hemorrhages were seen in the region of the epiglottis, larynx, and upper reaches of the trachea.

Cultures were taken in this case from the larynx, spleen, and the heart's blood. In addition, some of the fresh material was forwarded to Dr. Thomas Francis of the Department of Bacteriology of New York University, who, with Dr. Klosterman's assistance, kindly rendered a report as to the absence of any known filterable virus in the tissues of the larynx. He reported finding, however, a hemolytic Staphylococcus albus as a predominant organism. A similar finding was obtained by us on cultures of the larynx, in which a colon bacillus was also found. Aerobic cultures of the spleen and heart's blood yielded no growth.

Microscopic sections taken from the larynx showed local areas in which the epithelium was edematous and the seat of early ulceration. The underlying subepithelial tissue was edematous and heavily infiltrated with inflammatory cells, the predominant cell being the polymorphonuclear leukocyte.

#### Comment

In summary, then, this is a case of sudden onset of sore throat of slightly less than twenty-four hours' duration, with death due to edema of the glottis associated with the presence of an acute fulminant bacterial infection, caused in all probability by the hemolytic Staph. albus.

Case 3.-A 5-year-old boy, twenty hours prior to his death, was in presumably normal health. At noon of the day preceding his death, he complained that his throat was sore and that it hurt to swallow his food. He had a good lunch, however, After lunch he slept for an hour and a half. Following his nap he went out and played, as a normal child would, until dinnertime. At this time, he complained that he could not eat because his throat was sore. He was given a gargle of aspirin and a dose of milk of magnesia, and sent to bed. Before going to sleep, he appeared in good spirits and played with the other members of the family. His foster mother noted that he slept very soundly until about 3:30 A. M., when he woke her and told her that he had vomited. He went back to bed and appeared quite restless for an hour or two; then he settled down and went to sleep again. At about 6:30 A.M., he awoke and laughed and talked with the son of his foster mother, who was dressing in the room in which the boy slept. At about 7:15, when the child was next seen, he was noted to be having definite difficulty in breathing. At this time, a physician was called. When the latter arrived at about 8 o'clock, the child was markedly dyspneic and, according to the physician, had a pale, ashen color, appearing to be gravely ill. As the physician was about to examine the boy, he stopped breathing, and artificial respiration failed to revive him.

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Postmortem cultures were taken from the larynx and trachea, the lung parenchyma, the main bronchi, and the spleen. All the organs except the spleen showed hemophilus influenzae; the culture of the spleen was sterile. In addition, green streptococci were obtained from the larynx and trachea and lung.

Microscopic sections of the lung in this case showed a histologic picture quite similar to that seen in the first case, in which the air spaces contain abundant red cells. There was also evidence of widespread interstitial edema. In addition, the regional bronchioles showed a purulent exudate, and in one or two fields the air sacs were seen to contain a moderate distribution of polymorphonuclear leukocytes among the red cells.

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In summary, the cause of death in this case is edema of the glottis, consequent to an acute laryngotracheitis caused in all probability by the hemophilus influenzae. This case in some respects calls to mind the recent report in the J.A.M.A. by Sinclair, \* who describes a form of acute laryngitis caused by hemophilus influenzae, type B, and associated with bacteremia. He reported 10 cases, all of which showed bacteremia and none of which showed hemolytic streptococcus in the nose or throat. In two of the fatal cases that were autopsied, the organism was recovered from the lung without any gross or microscopic evidence of pneumonia. The symptoms and signs of his cases were severe sore throat, laryngitis, fever, leukocytosis, and signs of shock; the children were markedly toxemic. In his observed cases, the laryngitis was associated with edema and congestion of the epiglottis and larynx. It is noteworthy that the dyspnea caused by these anatomic changes was not relieved even by tracheotomy. The severity of onset and the fulminant nature of the course of this disease process are evident from the fact that one patient died three hours after onset of the symptoms. It is noteworthy that this is essentially a disease of childhood, as none of his patients was older than 7 years, the youngest being 41/2 months old. The similarity between Sinclair's group and our case lies in the recovery of the influenzal organism, the type of which is undetermined because of the lack of facilities in our laboratory. The dissimilar feature is the absence of bacteremia in our case, this inference being drawn from the negative culture of the spleen.

#### Conclusion

From the presentation of the evidence, no attempt has been made to explain the mechanics of sudden death in the individual case. It is evident from the case reports that mechanical asphyxia was a predominant factor in one case. In the case of the child showing presence of hemophilus influenzae, the absence of any mechanical obstruction to the airways, coupled with the presence of the organism and previous knowledge of this disease in children, lends support to the supposition that death is due to a rapidly acting toxemia. In the case of the malignant mesothelial tumor, it is likely that the suddeness of the death can be explained on the basis of

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#### A.M.A. URGED GROWING CINCHONA IN U.S. YEARS AGO

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"Three years later, in 1867, the Medical Society of Wayne County, Michigan, submitted to the eighteenth annual session of the American Medical Association a paper by its member, Dr. J. M. Bigelow, which examined the whole cinchona situation in more detail and boldly and rightly asked the introduction and cultivation of the cinchona tree in the United States. Dr. Bigelow designated western Texas, Arizona, or Lower California as best fitted for such plantations..."

A committee was appointed to "memorialize" Congress on this vital question and the next year, 1868, a report of the committee was read in the Association's Section on Chemistry and Materia Medica. A new committee was appointed and for seven years this committee, under the leadership of Dr. L. J. Deal, of Pennsylvania, carried on a vigorous, intelligent fight for the cultivation of the cinchona tree in the United States.

"At the twenty-first annual session, in 1870," Dr. Ackerknecht continues, "Dr. L. J. Deal submitted a report of the committee, consisting mainly

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The American Medical Association therefore asks, in view of the foregoing facts, that the Congress of the United States would appoint a commission of scientific men for the following purpose:

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1. To determine what portion if, any, of the public domain of the United States will produce the cinchona, and which may be set apart for this purpose.

2. To determine what species may be best transplanted

and will furnish the greatest amount of active principles.

3. That they be authorized to visit such South American countries as they may deem necessary in order to determine these points, employ a competent botanist to assist them, and that our consuls in such States be instructed to further these

investigations.

4. That they be empowered to negotiate for, and obtain a proper quantity of seeds and plants.

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We would not be confronted today with a quinine shortage had the advice of the American Medical Association seventy-five years ago to grow our own cinchona trees been heeded, Erwin H. Ackerknecht, M.D., Baltimore, points out in the Journal of the American Medical Association for October 9. "It is now common knowledge," Dr. Ackerknecht

writes, "that the Japanese, in taking Java, cut off the source of almost the entire prewar quinine supply of the world. It is equally well known that the resulting quinine shortage is still, in spite of many ingenious and valuable countermeasures, one of the most serious problems of medical warfare. The American Medical Association can be rightly proud of having been, seventy-five years ago, the pro-tagonist of a plan which, if it had been executed, would have saved us our present difficulties.

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### THE INCIDENCE OF DEFICIENCY SYNDROMES

HERBERT T. KELLY, M.D., and MYRTLE SHEPPARD, A.B., Philadelphia

In THE words of McLester: "True, deficiency disease occasionally appears in an outspoken form, as in scurvy or beriberi, but with vastly greater frequency it takes the form of vague borderline states of ill health, states which destroy the patient's happiness and impair his usefulness. These subclinical forms are manifold in nature...."

This study was undertaken to indicate the prevalence of recognizable early forms of deficiency disease, which, according to Aring and Spies,<sup>2</sup> is difficult to measure quantitatively, but which can be substantiated by clinical and laboratory findings.

Material. The same 225 patients, who were under our medical supervision and represented a cross section of individuals from the upper income levels, were used for this study as for our previous study on dietary deficiencies.<sup>3</sup>

Method: For each of the 225 patients, we had a medical and dietary history (as discussed in our previous paper), and record of medical and nutritional examination. In addition, indicated laboratory tests and x-ray studies were conducted. In conjunction with the regular medical examination, the nutritional examination considered: general appearance and condition of the skin and its appendages, the eyes, the lips and oral contents, and the extremities.

The laboratory procedures consisted of biophotometer reading, hematologic studies, sedimentation reaction, serologic and blood chemistry tests, urinalysis, basal metabolism measurement, gastric analysis, diagnostic gallbladder drainage, examination of feces, electrocardiography, Althausen galactose test for intestinal absorption, glucose tolerance test, and plasma prothrombin determination. Also included among the laboratory procedures were diagnostic tests for specific vitamin and mineral deficiencies, such as the ascorbic acid tolerance test, a blood calcium and phosphorus determination, a blood test for total iron, and a twenty-four-hour analysis for calcium and phosphorus in the urine. X-ray studies included roentgenology of the bones, joints, teeth, heart, lungs, and gastrointestinal tract.

#### Recognized Deficiency Signs

From the findings of the medical and nutritional histories, physical and nutritional examinations, laboratory tests and x-ray studies, we tabulated the data recorded in Table 1. The signs

This study was made possible by a grant from White Laboratories, Inc., Newark, New Jersey.

and symptoms listed are usually associated wit deficiency states and are a compilation of re search findings, using as a model the table, "Gros Evidences of Malnutrition," compiled by Jolliffe McLester, and Sherman.<sup>4</sup>

#### Dextrose Tolerance Curve

"Malnutrition," according to Robinson, She ton, and Smith, 23 "disturbs the dextrose toler ance of a patient and produces a clinical condition which might be called pseudodiabetes." Accordingly, we listed in Table 1, under "Ce Oxidation," a diabetic-like dextrose toleranc curve as one of the probable signs of malnutration. However, according to our data, only three patients exhibited a dextrose toleranc curve similar to that described by Robinson et all.

On the other hand, our observations lead us to believe that hypoglycemia and malnutrition are closely interrelated—how closely can be determined only by more thorough investigations. In our limited survey, many of the patients who exhibited clear-cut deficiency syndromes showed, or laboratory test, indications of hypoglycemiathat is, after the oral administration of 100 Gm of dextrose, the patients complained of the usual manifestations of dizziness, faintness, and the like.

Many of the syndromes listed in Table 1 an "specific" for more than one suggested vitamin or mineral deficiency, indicating the interrelation ship among the dietary essentials. In addition to the signs and symptoms listed, such condition as abnormal weight, abnormal height, pallor and fatigue may also be indices of general mal nutrition.

#### Intestinal Signs of Deficiency

Deficiency states are "mirrored rapidly" in abnormal changes in the eyes, skin, and mucous membrane; in the skeletal, cardiovascular, urinary, and gastrointestinal systems; and in aberrations of cellular oxidation. Many authorities in roentgenology are of the opinion that rarely does a nutritional deficiency exist without associated alterations in the roentgenologic appearance of the gastrointestinal tract. 24,25

The intestinal pattern of impaired nutrition, as visualized roentgenologically, consists of two stages. In the mild or primary stage the pattern is one of hyperirritability and hypertonicity with numerous contraction waves—a picture of general intestinal unrest. In the secondary stage of the abnormal pattern the intestinal picture is one

TABLE 1.-Indicated Prevalence of Signs and Symptoms of Malnutrition

System	Signs and Symptoms	Suggested Deficiency	Number of Patients	Percentage of Patient
yes	Xerosis of conjunctiva	Vitamin A * 1015	77 (dats for only 97)	79
	Vascularization of cornea Burning and itching of eyes	Riboflavin † 4 Vitamin A † 4 Riboflavin † Riboflavin † and vitamin A † Vitamin A † Riboflavin † Vitamin A † Vitamin A †	60 (data for 97) 17 (data for 97) 33 (data for 97) 54 59 100	62 17 34 24 26 44 15
	Central ophthalmoplegia	Thiamin	2	1
Mucous membranes	Scorbutic gums Magenta glossitis Cheilosis Soreness of lips and tongue Scarletred glossitis	Vitamin C <sup>*</sup> Riboflavin <sup>1</sup> ,11 Riboflavin <sup>1</sup> ,12 Riboflavin <sup>2</sup> Nicotinic acid <sup>11</sup>	30 14 137 22 36	13 6 61 10 16
	Stomatitis with or without secondary Vin- cent's infection Atrophic glossitis	Nicotinic acid <sup>11</sup> Nicotinic acid <sup>7,11</sup> (B complex, Addison's anemia, Plum-	55	24
_	Nonspecific urethritis, balanitis, vaginitis	mer-Vincent syndrome) Nicotinic scid <sup>11</sup>	28 11	12 5
Skin	Hyperkeratosis .	Vitamin A	71	31
	Hyperfollicularis Hemorrhagic manifestations Seborrheic lesions in nasolabial folds on	Vitamin A <sup>7</sup> Vitamins C and K <sup>7,12</sup>	27 7	12 3
	face, behind ears, and in skin folds	Riboflaving,11,12	29	13
	Fissures in angles of mouth Pellagrous dermatitis	Riboflavin <sup>9,11,12</sup> Nicotinic acid <sup>11</sup>	102	45 0.5
Neurologic	Characteristic bilateral symmetrical poly- neuropathy	Thismin <sup>11</sup>	125	<i>5</i> 5
	Wernicke's syndrome Combined system syndromes	4 4	0 94	0 42
	Certain organic reaction psychoses	acid11,15,11	30	13
	Nicotinic acid deficiency encephalopathy	Nicotinic acid16	Õ	0
	Progressive stupor and hebetude Tetany	Nicotinie acid <sup>14</sup> Calcium <sup>7</sup>	0	0
Skeletal	Rachitic deformities and osteomalacia	Vitamin D, calcium, phos- phorus <sup>1,7,17</sup>	5	2
	Rarefaction of bones and spontaneous fractures	Calcium <sup>7,17</sup>	0	0
	Dental cariest and periodontal disturb- ances, including gingivitis and pyorrhea	Vitamins A, C, D, calcium, phosporus <sup>7,17</sup>	135	60
Cardiovascular	Changes in Vitamin C content of blood Abnormal electrocardiogram changes in T	Vitamin C	28	12
	waves and prolongation of electrical systole Wound healing delayed	Thiamin <sup>15</sup> Vitamins C and K, pro-	4	2
		tein11,'9,20	5	2
	Microcytic hypochromic anemia Disturbances in calcium and/or phos-	Vitamin C, protein, iron <sup>7</sup> Calcium, phosphorus, vitamin	41	18 9
Tt.d.	phorus content of blood Edema	A <sup>7,17</sup> Protein, thismin, vitamin C <sup>7,18</sup>	21 45	20
Urinary	Disturbances in calcium and phosphorus content of urine	Calcium, phosphorus, vitamin D <sup>17</sup>	100	44
_	Disturbances in Vitamin C content of urine	Vitamin C	70	31
Gastro-	Increased motility and nervous irritability	Calcium, thiamin7,17	41	18
intestinal	Achylia	Thiamin <sup>21</sup>	30 29	18 13 13 13 18 21 23
	Delayed motility Heartburn	Thiamin <sup>21</sup>	30 30	13
	Flatulence		41	18
	Anorexia	Thiamin, nicotinic acid, B	48	21
	Nausea Vomiting	complex21,22	53 36	23 16
0 "	Constipation and/or diarrhea		106	47
Cell Oxidation	Diabetic-like dextrose tolerance curve	General malnutrition <sup>22</sup>	3	1
* Krusei.s h	Hypoglycemia	General malnutrition	89	40

\*pot. (3) he following types: (1) Bitot spots; (2) gross conjunctival changes without a loupe. Of the 77 patients who had xerosis, 37 were of Type 1, 34 of Type 2, and 8 we. The comman signs of ariboflavinosis to examine the eyes of only 97 of the 225 patients. The command the intering of arcades and extensive to limbus; and the air additional tension of the second tensio

des which are not continuous; invasion of cornea by capnounced in superficial layers of conjunctivae. 115 patients), 943 teeth had been extracted and 804 were

of sluggishness and irregular peristalsis. Thus, the primary stage represents functional changes, the secondary stage morphologic alterations. The morphologic change of the gastrointestinal

tract is revealed, by x-ray, as an alteration in the mucosal pattern of the small bowel, especially in its upper loops.<sup>26</sup> The variation of intestinal change from a state of unrest to a state of slug-

gishness is comparable to the change that takes place in the deep tendon reflexes in a thiamin deficiency. In the mild deficiency state the knee jerks are overactive; in the advanced stage of thiamin deficiency there is an absence of knee jerks.

#### Nutritional Inadequacy

Recognizing and interpreting the symptoms and signs of nutritional deficiency are only half of the diagnostic problem. The other half of the problem is to discover the cause of the deficiency. It is a simple matter to obtain and analyze the diet in order to determine the possibility of a "dietary inadequacy"—failure to ingest an essential nutritional factor or factors in amounts sufficient to meet the existing requirements of the body. However, it has been found that inadequate dietary supply of a nutritional factor is only one of the causes of "nutritional failure."

In addition, certain mechanical, chemical, and psychogenic conditions may interfere with assimilation of nutritional factors and deficiency may result not only because of dietary inadequacy but also because of nutritional inadequacy due to the patient's failure to digest, absorb, fabricate, and store the essential nutrients in the liver, distribute and utilize the products of digestion, or to loss of formed elements. It is important, in addition to prescribing therapy, to attempt to correct these mechanical, chemical, and psychogenic conditions. For example, the causative factor of a syndrome of perlèche associated with a smooth, burning tongue and resembling ariboflavinosis,7 is often a mechanical defect such as ill-fitting or inferior dentures or an absence of dentures and not inadequate riboflavin intake.

In nutritional inadequacy, because of faulty assimilation of the nutritional factor or factors, the demand for these is thereby increased. If the supply of these factors is not increased, nutritional failure or deficiency disease may result. Table 2 lists the somatic conditions which may bring about nutritional inadequacy, and the prevalence of these conditions among the 225 patients studied.

In addition to the somatic conditions recorded, others such as nausea, food allergy, migraine, mental disorders (neurasthenia, neurosis, psychoneurosis, and psychosis), and major surgical operations interfere with the normal food intake. Normal conditions such as lactation, pregnancy, growth, etc.—all of which increase nutritional requirements—have not been considered in this comparative study. A comparison of Tables 1 and 2 reveals the fact that conditions such as histamine achlorhydria, alterations in the gastrointestinal pattern, and polyuria may be not only

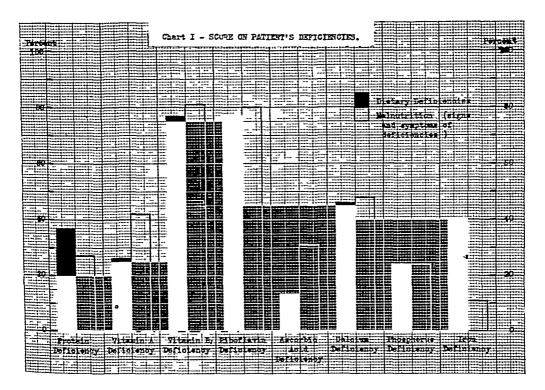
TABLE 2.—Indicated Prevalence of Somatic Factors
Among 225 Patients

_	Among 225 Patin	ents
==	Somatic Factors	Number of Patients
1.	Conditions Interfering with Mechanical and Chemical Digestion: Mechanical	
	Masticatory insufficiency	135
	Impaired motility of the gastrointestinal tract Chemical	70
	Inadequate secretion of di-	106
	·	(data inadequate)
2.	Conditions Interfering with Intestinal Absorption of Products of Digostion:	
	Gastrointestinal fistulas	0
	Ulcers and carcinoma of stom- ach or bowel	6
	Diarrheal diseases	10 (sec above)
	Impaired motility of gastro- intestinal tract	(Bec BOOVE)
	Hyperthyroidism	29
	llypothyroidism	19 9
	Hij prikisjinemia Događeni Maria	13
	Dr. 1 Alfabate, by	92
	<ul> <li>A set of the Adaptive fit</li> </ul>	1
	Absorbents—e.g., mineral oil Histamine achlorhydria	12 30
3.	Conditions Interfering with Storage and Conversion in the Liver:	
	Liver disease	(see above)
	Hyperthyroidism or hypothy- roidism	(see above)
	Disturbance in resorption as icterus and peritoneal carcinosis	0
4.	Conditions Interfering with	
	Distribution:	22
	Arteriosclerosis Buerger's disease	0
5.	Conditions Interfering with	
	Utilization: Diabetes mellitus	17
	Liver disease	(see above)
	Hypothyroidism	(see above) (see above)
	Hyperthyroidism	96
	Infection Alcoholism	17
6.	Conditions Representing Loss of Formed Elements:	
	Proteinuria	19
	Glycosuria	21 54 (data for only 153
	Polyuria	patients)
	Ascites Hemorrhage and bleeding	54
	Hemorrage and Diccom	

the results but also the causes of nutritional fail-

When confronted with possible nutritional deficiency disease the physician should attempt to determine whether the patient's symptoms and signs are due to dietary inadequacy or nutritional inadequacy.

Certain dietary conditions also may bring about impaired digestion, absorption, etc. For example, a low fat intake interferes with the absorption of vitamin A, excessive fat has an inhibitory effect on riboflavin; the combination of mineral oil and carotene, or vitamin A and iron, or of phosphorus and iron are each incompatible, for they form insoluble compounds that are not utilized by the body, but instead are passed out in the form of waste material—each bringing about possible nutritional failure.



# Correlation of Diet with Signs and Symptoms of Deficiency

After accumulating all our data we attempted to compare the dietary findings with the clinical information provided by the patients' histories, physical and nutritional examinations, and laboratory tests. Chart I compares the incidence of dietary deficiencies with that of the specific signs and symptoms which we observed.

In stating that 42 per cent of our patients had a vitamin A deficiency and 85 per cent a thiamin deficiency, we wish to emphasize that we may not be completely accurate, for these conclusions are merely assumptions. Such statements could be entirely accurate only if we had conducted upproved quantitative tests to determine the concentrations of the more important vitamins and minerals in the blood stream or other body fluids. Such tests were conducted for calcium, phosphorus, iron, and vitamin C. Unfortunately, however, these tests were not done on all the patient; studied. Therefore, when our data were accumulated we concluded that a patient had a specific nutritional deficiency when he exhibited one or more manifestations of that deficiency, which is of course limited in its scientific merit.

We found that all the patients who had a dietary deficiency of a specific nutritional factor, with the exception of protein and iron, also seemed to exhibit the characteristic syndrome of this specific nutritional deficiency.

In the cases of protein and iron, the dietary deficiency seemed more prevalent than the specific deficiency syndromes, apparently because edema, impaired wound healing, and microcytic anemia are the only specific signs of protein deficiency which have been listed in our tabulations, and anemia and subnormal iron content of blood are the only specific signs of iron deficiency which are listed. The other signs and symptoms of these deficiency states are not too well defined and include such general manifestations as fatigue, underweight, irritability, and the like-all of which may be due to deficiency of other nutritional factors as well and, therefore, cannot be considered in the numerical count of the symptomatology in our patients exhibiting deficiencies of protein or of iron.

Interestingly, more patients seemed to exhibit syndromes of deficiencies of vitamin A, thiamin, riboflavin, vitamin C, and calcium than their diets indicated. We attribute the possible higher incidence of these deficiency syndromes to the large percentage of patients who had conditions that interfered with their adequate food intake.

In most instances, a patient seemed to exhibit more than one specific deficiency syndrome, thiamin and riboflavin deficiency syndromes usually occurring together. We did not extend this comparison to vitamins and minerals other than those included in Chart I, since our dietary information was inadequate. However, it is of interest to point out that approximately 35 per cent of the patients seemed to manifest one or more signs of nicotinic acid deficiency syndrome. Again, we did not consider caloric supply in this comparative study, since, in our opinion, the caloric daily requirement is flexible and not so important as the requirements for other dietary Also, we have found that most essentials. women of moderate activity do not require 2,500 calories daily and most men of similar activity do not require 3,000 calories daily, as specified in the "Recommended Daily Allowances."28

#### Summary and Conclusions

In this study of 225 patients from the upper income levels the indicated prevalence of deficiency syndromes was studied. Complete medical and dietary histories were secured and thorough physical and nutritional examinations, indicated laboratory tests, and roentgenologic studies were conducted to determine the cause of the deficiency. The causes of nutritional failure are dietary inadequacy and/or nutritional inadequacy. The physician should be thoroughly familiar with the signs and symptoms of nutritional failure, and have a thorough understanding of the somatic and psychogenic factors that interfere with mechanical and chemical digestion, with absorption of the products of digestion, with conversion and storage in the liver, with distribution, with the degree of utilization, and with the loss of formed elements, since these factors bring about nutritional failure in spite of dietary adequacy. Changes in the intestinal pattern should be of vital importance to the clinician and offer a clue as to the stage of the deficiency.

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#### MIDDLE CLASS AMERICA

To attempt a practical application of tax policy and government spending to the middle class American, let us consider the American medical profession as a part of our economy.

We all know that the emergency of illness is one of the worst hazards of the family of average means. Proposals for government-supported medical services can therefore be dressed most effectively

"in the language of the true humanitarian." It is not difficult for any of us, now that the Treasury Department has recommended an increase of twelve billion dollars in the tax load, to imagine an income tax for the average American family which might make payments for private medical service impossible.

There is now pending in Congress a proposal for the government to spend more than three billion dollars on medical and hospitalization service.

That three billion dollars is a quarter of the tax increase sought by the administration. So with the one hand the government would take away from the middle class American his ability to provide private medical care for himself and his family, and with the other it would offer him government hospitalization and medical care.

Physicians in private practice would find their incomes from private sources at the vanishing point. They would have to seek government employment. Thus, in this vital matter of hospitalization and medical care, the individual American, as well as the professional man, would be thrown on the mercy of the government or put in the clutches of the government, however you want to look at it. Think of the blow to American individualism that this one element of the problem threatens!—Providence Journal, August 5, 1948

# CONTRIBUTION OF MODERN PSYCHIATRY TO THE PHYSICIAN AND SURGEON

SMILEY BLANTON, M.D., Nashville, Tennessee

MODERN psychiatry has, I think, important contributions to make to the physician and surgeon. There are certain primitive impulses of love and hate in the unconscious mind of every human being which have a decisive influence on health and disease, on life and death. The development of these impulses can be understood by reviewing, briefly, the development of the child.

The human infant remains in a state of dependency on its parents, especially its mother, for three or four years. This relationship of the child to the mother is most intimate. The child is fed from the mother's body, cleansed by her, and its eliminative functions are cared for by her. It must be loved and petted also, if it is to be a healthy, normal child. All infants desire to retain this childish, intimate, bodily relationship to the parent, and the fundamental conflict in the life of every human being is incurred in the act of breaking away from this infantile relationship and developing more adult attitudes. Every child is rejected, in a certain sense, by his parents, because it is obvious that no person can act toward his mother at twenty as he would as a baby of two. But every time the child is frustrated in his desire to remain an infant with his parents, he becomes angry and has feelings of hatred toward the parent. It is common enough to hear a child say to his mother, who has refused him something, "Go away! Go away! I hate you. I wish you were dead."

The child, of course, loves his parents at the same time that he has these feelings of antagonism due to his frustration. But if the child is loved too much, or if he is not loved enough (one must apply common sense rules as to what is too much or too little), there develops in him a morbid amount of aggression and antagonism. Normally this aggression and antagonism is overcome by, or neutralized by, love, and no harm results.

Whenever the aggressive feelings are morbidly strong, they are repressed into the unconscious mind, and it is in the unconscious mind that there develop the impulses that give rise to morbid physical and mental conditions. Most of our behavior, and the attitudes that make for health or sickness, spring from the unconscious mind. This is one of the cornerstones of psychological medicine.

Perhaps a few examples will illustrate.

The first is a young woman, 34 years of age. She is the second of three girls; her older and younger sisters are very good-looking, attractive, and vivacious. This woman, as a child, was plain, quiet. and rather subdued. As she grew up, and as her sisters became more and more popular with boys, she developed more and more the feeling of being the "ugly duckling" of the family, and that no boy could care anything for her. In her unconscious mind there developed a marked feeling of aggression toward her sisters, which she reacted against by becoming very subservient to them and serving them in every way she could. She washed their clothes, she put up their luncheons, she did their typing for them, and made herself a veritable door But as a compensation for her position of inferiority, she became a brilliant student, graduated with honors from high school and college, and, after teaching for a time, got the degrees of Master of Arts and Doctor of Philosophy. She had no play life and she had no love life in the sense that she had no beaux, nor friends of the opposite sex, or really even any close women friends.

At about the age of 30 she developed symptoms of extreme fatigue. This was due to the fact that she had no emotional outlet. After a time, she developed mucous colitis. It was thought that her appendix might be the cause and it was removed, but with no benefit. Later on, because of a rather marked anemia, due to her listlessness, lack of exercise, and poor eating, her frontal and maxillary sinuses were operated upon because it was thought that they were the "guilty parties." Later on she had six teeth drawn and, sometime later, because her menses were prolonged, she had a curettement.

But all of this surgical procedure did nothing to relieve her fatigue. Indeed, it grew so pronounced that she was a semi-invalid and had to arrange to do half-time work in her school. It was only when the unconscious basis of her conflict was resolved that she was able to overcome her fatigue and lead a normal life.

Another case was that of a young woman who was very much attached to her mother and father. She was the youngest of six children and the parents, feeling that she was the last child, kept her a baby, psychologically, long after the time when she should have grown up. In order to escape this entangling family situation, and to avoid the bitter quarrels she had with her parents, she married at seventeen. She was psychologically unprepared for marriage, but within two months she became pregnant and subsequently had a child. This was quite a strain upon her because she was not ready for motherhood, and was quite badly torn at the birth of her child. About three years later, at the insistence of her husband, she became pregnant again. This time

Associate professor of clinical psychiatry, Vanderbilt University School of Medicine, Nashville, Tennessee.

occurring together. We did not extend this comparison to vitamins and minerals other than those included in Chart I, since our dietary information was inadequate. However, it is of interest to point out that approximately 35 per cent of the patients seemed to manifest one or more signs of nicotinic acid deficiency syndrome. Again, we did not consider caloric supply in this comparative study, since, in our opinion, the caloric daily requirement is flexible and not so important as the requirements for other dietary essentials. Also, we have found that most women of moderate activity do not require 2,500 calories daily and most men of similar activity do not require 3,000 calories daily, as specified in the "Recommended Daily Allowances."28

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surgery and medicine is the insistence on looking at the patient as a total organism that reacts on various levels: psychological, physiological, anatomical, etc. Instead of speaking of "organic" and "functional," psychological medicine would say that every illness, whether mental or physical, is based on three things:

- 1. The organism which the patient inherited.
- 2. The childish patterns, which are deep in the unconscious mind and which remain throughout life.
- 3. The present situation.

The old concept of organic and functional disease is no longer adequate, because it implies that the patient's body and mind are in separate compartments—that is, that the psychologic, the physiologic, and the anatomic sides of man are separate entities. This is not the case. Everything a person suffers from is organic in the sense that it is caused by changes in the body. Therefore, it is not a case of whether it is organic or functional, but whether the organic changes in the body are reversible or not.

For example, we saw a man not long ago who had to work in a very noisy place over switch engines that were clanging and banging all day long. He was also worried about his child, who has had infantile paralysis and was left with a lame leg. This man developed toxic goiter. It is very obvious that such a case can be called neither organic nor functional. Perhaps his thyroid was the weakest spot in his organism, but it seemed very obvious that the strain of noise and the worry over his child were the main factors of his disease. Rest, medical treatment,

arrangements for adequate treatment for his child, and the changing of his working place so that he would avoid the noise, brought about a cure.

' The last, and probably one of the most fundamental contributions that psychiatry has to make, is that it rightly has to do with the average, normal person, both in health and in sickness. The conflicts that exist in the average child as he grows up, may, as we have said, give rise to physical illness, neuroses, or psychoses. And psychologic medicine emphasizes that when a person is sick he is not merely a "case" of pneumonia, or of gallstone, or of appendicitis; he is a human being who has some pathologic condition of his body, but whose thoughts, feelings, attitudes, philosophy, and religious outlook play a vital part in his recovery. It also emphasizes the fact that in any illness he regresses to some extent, to a childish level, and that in a really serious illness, one in which the very life has been threatened, it requires a definite retraining of the patient's thoughts, feelings, and will in order that his adult attitude may be regained, else we see him fail to make an adequate convalescence and remain semi-invalid if he recovers.

Finally, dealing with the more serious mental conditions, the neuroses and psychoses: except for that 20 per cent which is caused by organic injury of the brain, we find their cause in these very regressions back to an infantile level, in these childish patterns and attitudes which are always present in the unconscious mind and which are always ready and waiting to come out under, to them, favorable circumstances, which are, indeed, imperishable.

#### THE HUMAN SIDE OF MEDICINE

Sir—Without in any way questioning Dr. Stark Murray's sincerity (Nov. 6, p. 591), one must wonder how he conceivably arrives at the belief that "the change over from an individualistic system of medicine to a comprehensive national service will give us the opportunity to humanize completely the relationship between patient and doctor. . . ." One indeed questions what humane treatment means to Dr. Murray. Others beside myself no doubt saw State medicine in action in Socialist Vienna—magnificent hospitals magnificently equipped, where the patient was just "Case No. 793," and often treated in a way that would never (up to now) be

tolerated anywhere in this country. This was not because the doctors and surgeons of that famous medical centre (in pre-Nazi days) were any less humane than their counterparts in London, but because the relationship between patient and doctor had been brought down to the level of that between the taxpayer and the income-tax inspector—not a person but a thing, not a personality but a body. Does Dr. Murray seriously consider that his relationship to an individual in his "official capacity" is ever more human than to that individual as an individual?—I am, etc.—Alan Maberly (in British M. J.)

# THIRD REGISTRATION OF NURSES TO BE HELD FEBRUARY 7 TO 12

Every graduate nurse in the United States is asked by the War Manpower Commission to go to her local hospital or health agency during the week of February 7 to 12 to register. Nurses of all ages, no matter how long it has been since they

engaged in active practice, are asked to register at this time.

The 25,000 members of the women's auxiliary of the American Medical Association have volunteered to assist the hospitals in the registration. she suffered from pathologic nausea. After three months of pregnancy, she had a spontaneous miscarriage. Soon after this, she began to suffer from severe headaches, attacks of tachycardia, and of dyspnea. She was treated for about a year without very much result.

It is my experience that pathologic nausea in pregnancy may often be due to an unconscious rejection of the child. Psychoanalysis showed that the patient bitterly resented this pregnancy—that she had wanted to be rid of the child, and that she was considered by her unconscious mind (which considers wishes as acts), as having caused the abortion herself. Of course, she was entirely unconscious of this mechanism, but it is proved over and over again that there can be severe physical symptoms caused by unconscious wishes of which the conscious mind is entirely unaware.

I may say in passing that every induced abortion, no matter how cool-headedly it is planned, is likely to give rise to physical symptoms, because whatever may have been the conscious decision in the matter, the unconscious mind accuses the individual of murder. In every such case, it is our experience that where there are physical symptoms, there should be an investigation of the deeper attitudes of the patient.

Not only is this true in induced abortions, but even in spontaneous miscarriages. There often occur serious psychologic symptoms when miscarriage occurs, because the unconscious mind accuses the woman of the sinful act of murder, since one side, at least, of a woman's mind often resents the existence of pregnancy.

The third case is that of a young man who was on his way to a neighboring town to ask a girl, with whom he had broken his engagement of marriage, to renew the engagement. He was doing this under the influence of his family's persuasion. He did not really love the girl and did not really want to marry her. On the way to the town, driving his car at only fair speed, he came to a curve in the road, but instead of taking the curve—he does not know whyhe drove straight forward into a tree and was thrown against the windshield, breaking his jaw and his arm. By the time he had got well, he had given up the idea of marrying the young woman he had been going to see. Since the man was intelligent, a skillful driver, and had not been drinking, it seems obvious that the accident was caused by some unconscious motive. We were later able to prove this in a psychoanalysis. The accident was a purposive accident, from the standpoint of the unconscious mind, of course, in order to avoid the marriage.

It has been our experience that whenever a person has an accident with which he has anything to do, every circumstance should be analyzed to see if the accident was not an unconscious and purposive one. Undoubtedly many accidents are caused by the unconscious desire to

have them. This may seem strange, but it seems also to be a fact.

The next is a group of cases of appendicitis. We studied three for comparison, two of them in young men and one in a girl of 17. All of them had pain, rigidity, and tenderness over the appendix area. The men had very slight leukocytosis; none of them had fever. The two young men had inflamed, congested appendices. The young woman's appendix was entirely normal.

There was nothing in the history of the men to indicate emotional conflict but in the girl there was a serious emotional difficulty, since, a short while before, her father had deserted her mother. Even more important, she was quite fat and felt herself to be very unattractive. The family was without resources and she had to start to work. On the way home from being given a physical examination for a job, she developed symptoms of appendicitis. It was a clear case of hysteria simulating appendicitis.

The question arises: what should be the attitude of the surgeon in such a case? Should be or should he not postpone the operation? In such cases, it has been the experience of individual surgeons, as well as psychiatrists, that it is best to tell the patient that there is no proof that he has appendicitis, but that the surgeon is going to operate to see what the condition is, because he considers it unwise to take a chance; then, if no pathology is found, the patient should be told that the condition was an emotional condition and some effort should be made to help him overcome it. Otherwise, he may very likely develop some other physical symptoms simulating another pathology, causing another operation to be performed.

Let me give one more example of the influence of the unconscious impulses of love and hate on life and death. A woman 47 years old came into a hospital because of severe attacks of gallstones. She had been in the hospital for about a week, being prepared for the operation, when a letter from the mistress of her husband fell into her hands. She and her husband had seemed very close to one another, and she had no idea that he was untrue to her. She did not tell her surgeon about this.

She took the ether rather badly and remained in shock for some time after the operation. She seemed The surgeon could not undervery depressed. stand why she should have reacted so badly, and feeling that something was disturbing her, asked her what was on her mind. She told him, and she told him also that she did not care to live and did not intend to. Five days after the operation she went into a coma and a week later she died.

It seems to be a fact that whether patients ... live or die depends to a large extent on their will to live, and their will to live depends on whether they feel themselves loved, wanted, needed. One contribution of modern psychiatry to

#### Diagram

# BOUNDARY OF JURISDICTIONAL AREA For advanced cases Uncontrolled FING I Cases Cases discharged 8. A. O. R.

A. O. R. : Acting on own responsibility.

#### The Advance of New Methods

The reason for this deplorable state of affairs is that the tuberculosis specialist cannot support himself in a small community. He is forced to engage in general practice. His hospital connections are frequently jeopardized by the nature of his work. His interest in tuberculosis fails and finally dies. His pneumothorax instrument rusts on its hinges. But, just as the cottage sanatorium has fallen into disrepute, so has the tuberculosis specialist been completely outdistanced by the march of events. New technics and methods have come into common use, all of which are essential for the diagnosis and treatment of diseases of the chest. They include physical diagnosis, radiography, bronchography, pneumothorax, thoracoscopy, bronchoscopy, esophagoscopy, and surgery. They cover different aspects of a common field of knowledge and endeavor. A practitioner familiar with these methods is not simply a tuberculosis specalist; he is a pneumonologist, capable of rendering expert service on any of the minor or major procedures connected with the diagnosis and treatment of thoracic disease. His activities do not interfere with those of the general practitioner, who, on the contrary, should extend his sphere to include the care of uncomplicated pneumothorax cases. Hence, such a specialist would find his usefulness in a small community or on the staff of the average general hospital equal to that of any other specialist and his financial position equally secure.

#### Obstructionism in the Field

The realignment of medical and allied services according to the above plan would make four

contributions of inestimable value to the antituberculosis fight. It would (1) extend the field of expert service in lung diseases, including tuberculosis, to all the people, immediately; (2) bring the general hospital, with its intimate public contacts, back into the ranks of antituberculosis workers: (3) enlist the services of the family physician in the fight against tuberculosis, thereby turning the dream of early diagnosis into a reality; and (4) make possible the adequate institutional or supervisory care of all open cases. The mass examination of population groups brought about by the present military emergency has already thrown back thousands of early cases to the family physician. The opportunity is at hand. Much of the work is being done for us, if we are ready to take advantage of it.

Unfortunately, there seems to be little or no tendency toward present movements in this direction. The American College of Surgeons refuses to recognize thoracic surgery as a specialty and the Advisory Board for Medical Specialties has no listing for the specialist in lung diseases. Bronchoscopy is still retained under the specialty of otolaryngology. In upstate New York, an effort is even being made to accentuate monopoly by concentrating all chest surgical services for one-half of this state in a single hospital. These organizations and these individuals are using their influence to retard the progress and prevent the spread of applied medical science. How are we going to bring about these changes? Perhaps we must wait until public opinion demands that the medical fraternity perform its duty to the masses. When will this be? After the war? Are we going, because of the momentary diversion of our attention, to fumble one of the

#### **PNEUMONOLOGY**

MILTON SILLS LLOYD, M.D., New York City

THE war, which has brought the tuberculosis I problem vividly into focus for other nations, is now rendering this invaluable service to America. Let no one assume that the defeat of our human enemies is the only or even the greatest benefit that may accrue to us as a result of this world-wide struggle. If this war could bring about a sane, well-organized, and concentrated attack upon tuberculosis, leading to its eventual elimination, a contribution would be made to our future society of far greater value than the defeat of Germany and Japan. At a recent meeting in New York of the state and local tuberculosis committees, Dr. Robert E. Plunkett is quoted as having said that the number of deaths from the disease (tuberculosis) since the United States entered the war was six times greater than the casualties among the armed forces of the country. 1 This is not intended to and does not need to cause the slightest deviation from the full pursuit of military victory. The means to successfully combat tuberculosis are at hand. They should be fully exploited. In the words of Archibald MacLeish, "If the means to cure the ill exist and are not used, the failure is a failure of decision, an inability to choose."2 And to quote from the report of Sir William Beveridge to the British Government, "A revolutionary moment in the world's history is a time for revolutions, not for patching." This is the kind of thinking that is necessary in the realm of tuberculosis.

Competent lay and professional opinion has frequently expressed the belief that tuberculosis can be eliminated in a reasonably short period of time (probably fifty years). Improved living standards have made and will continue to make contributions in this direction. But the knock-out blow must be delivered by the medical profession and its affiliated organizations. Unfortunately, this part of our forces has been maneuvered by circumstances into a position of tactical impotence.

#### The Position of the Enemy

Tuberculosis in any selected community may be looked upon as a two-ring circus (see Diagram.) Ring I, the house-infection group, provides a constant supply of new far-advanced cases to Ring II, the supervised group. In this realm, concentrated work with excellent results has been done, but it is obvious that, regardless of the intensity of activity in Ring II, the situation will remain unchanged until the source of

supply in Ring I is successfully attacked. The question is posed, in other words, of the relative importance of preventive and therapeutic activities.

Great progress has been made in this century in the fields of diagnosis, classification, and medical and surgical treatments. Unfortunately however, the mistake has been and continues to be made of employing the same standards and methods in the field of public health. The effort is bound to be futile. Health authorities must work out a classification based upon the case relation to public health interests. This should present no difficulty, since all the elements are known and understood.

#### Current Policies Outmoded

When Trudeau demonstrated the value of test a new era of hope was opened for the tuberculosis sufferer. It was, however, not an unmitigated gain.

The general hospital, long embarrassed by the tuberculosis problem, shifted its burden with a sigh of relief to the rapidly developing crop of country sanatoria. In quick succession, medical boards of general hospitals all over the country inserted clauses in their constitutions prohibiting the admission of tuberculosis cases to, or their treatment in, general hospitals. This move denied all opportunity for training to the general practitioner, without whom there can be no hope of early diagnosis. The specialty of tuberculosis became a monopoly exploited by a small army of workers in which everyone is a general and there are no soldiers. It eliminated the possibility of ever rendering adequate service to the public in the tuberculosis field, because the services which reach the public (institutional and personnel) are excluded in advance. Only in large urban centers are found facilities and trained physicians equal to the demand. If the population of the United States is divided on the basis of service to tuberculosis patients, we find that approximately thirty five million may conveniently secure such care; the remaining one hundred million cannot. It is frequently necessary for the patient to travel one hundred miles for such a simple procedure as a pneumothorax refill.

The average general hospital has no chest service at all. The disease and the remedy have become mutually supporting antagonists. Again the effort, as far as its public health aspects are concerned, is destined to futility.

# THE ANESTHETIC MANAGEMENT OF AGED PATIENTS WITH TRACTURED NECK OF THE FEMUR

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THE field of geriatrics is steadily widening as the longevity of our population is increased. Between 1900 and 1940, in the United States, here was an increase of fifteen years in the average life expectancy. In 1940, 6.8 per cent of the population was 65 years of age or more, and with the war it is expected that the proportion of aged will continue to rise.

These figures indicate the growing importance of a more careful consideration of this group of patients. Surgery has always been considered a hazardous undertaking in the older individual, and not the least of the dangers involved was anesthesia. Although we cannot control the degenerative changes that are almost invariably present in the patient of advanced years, we can attempt to minimize the physiologic trauma to which he is subjected during anesthesia.

Fracture of the femur is among the more common conditions for which surgery is undertaken for the aged. This condition is peculiarly suitable for an analysis of the older age group, since most of these patients were supposedly not ill prior to the accident, or at least were able to carry on their ordinary duties, and therefore should be representative of a cross section of the older population.

Elderly patients with fracture of the neck of the femur present an interesting problem in management. Within the recent past, fracture of this kind was a catastrophe. There were, of course, attempts at treatment. Even the Egyptians treated this fracture by devising splints. methods of traction, and some type of cast. <sup>1,2</sup> Their results are not known, but may have been good, since no mummies with nonunion have been recovered from their tombs. Ambrose Paré has written on the treatment of this injury. Up to 1905, many types of splints, casts, and operative procedures were reported, but the consensus of opinion was that active treatment was almost hopeless.

In 1905, Royal Whitman crusaded for the application of a plaster body cast after closed reduction of the fracture performed during anesthesia. Before this, 75 per cent mortality was a conservative estimate. Whitman's treatment reduced this figure to an average of 20 per cent.

Modern treatment dates from 1928-1931,

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when Smith-Petersen recommended open reduction and internal fixation for fractures of the femoral neck. This work initiated an era in which special equipment and technics are constantly being developed. Closed reduction with internal fixation has naturally followed the open operation. The manipulations are now usually performed with efficiency and dispatch, and only the moribund are refused operation. Mortality, morbidity, and hospital stay have been strikingly reduced, and it is agreed now that no patient need be denied operation because of advanced age.

The successes with this operation, in so far as survival is concerned, are dependent to a large extent upon the advances made in pre- and postoperative care and anesthetic management. Although the tendency toward early operation is growing, surgery is generally delayed until the patient's condition is satisfactory or improving. Shock is treated. Fluid-electrolyte balance, cardiac and renal status are appraised and appropriately handled. This care is extended to the postoperative period. The objective is to bring the patient to operation in optimum physiologic state, perform the operation, and maintain this condition postoperatively. Most critical is the period of anesthesia and operation. The management of this period is the problem of the anesthetist. With the clearer understanding of the pharmacology of anesthetic drugs and their effects in the presence of organic and functional disturbances so prevalent in the aging patient, and the improved methods for anesthesia. the hazards of surgery and postoperative complications have been minimized.

The elderly person frequently presents special problems, and no one routine is certain to meet all requirements. Preoperative complications are considered in the evaluation of the patient's physical status, and specifically influence the choice of anesthetic agent and technic. The various problems the anesthetist must solve satisfactorily might be listed. These are: (a) pain relief, (b) protection against uncomfortable positions and restlessness, (c) adequate muscular relaxation, (d) maintenance of normal physiological functions, especially in the presence of complications, (e) possibility of explosions with x-ray apparatus.

Brief consideration will be given to the inhalation, regional, and other groups of drugs to indicate the trend of reasoning taken in their selecgreatest opportunities ever placed in the hands of American medicine?

#### Summary

- 1. We know how to prevent and how to treat tuberculosis. Our failure to make better progress lies in a faulty organization—an "inability to choose."
- 2. The burden of complaint of the tuberculosis worker in the past has been late diagnosis and insufficient hospital beds.
- 3. The early diagnosis problem is being solved for us to a large extent as a by-product of the war. It can be completed by enlisting the services of the general practitioner and the "bed" problem can be met by carrying the work to the people in the general hospital and the home.
- 4. The intensity of medical activity must be equally divided between the fields of therapeutic and preventive medicine. A new classification of tuberculosis, based on public health requirements, must be worked out. On this basis, there should be an intensification in the application of provisions of the sanitary code to tuberculosis cases by health authorities and, if necessary, an increased allocation of power to them.
- 5. To accomplish this, the general practitioner must be given training in tuberculosis and

- a share in antituberculosis work equal to the part which he plays in other fields. The lung specialist must be given the opportunity of rendering his service to, and earning a living in, a small community.
- 6. A new specialty, "pneumonology," including all the modern methods of diagnosing and treating thoracic disease, must be established and gradually built up in every general hospital. This does not increase the tendency toward specialization. It would, on the contrary, turn the three "specialties"—tuberculosis, bronchoscopy, and thoracic surgery—into one and give them their proper deployment in organized medicine.
- 7. This would carry the antituberculosis work to all the people and a full-scale, nation-wide campaign would then be under way.
- 8. The greatest opportunity likely to occur in this century is with us at this moment. By intelligent organization we can win a resounding victory in this field without the expenditure of any money and without diverting our attention in any degree from the war effort.

#### References

- 1 New York Times, June 4, 1943.
- <sup>2</sup> Atlantic Monthly, June, 1943.

#### Announcement

#### 1944 ANNUAL MEETING

Medical Society of the State of New York

The 138th Annual Meeting of the Medical Society of the State of New York will be held Monday, May 8, to Thursday, May 11, 1944, inclusive, at Hotel Pennsylvania in New York City.

COUNCIL COMMITTEE ON CONVENTION

tient's head and neck with a single wet cotton sheet, which extends downward to the floor. In addition, a closed anesthesia system with carbon dioxide absorber will allow no free gases to reach the atmosphere, and thus further protection is added. While electrical equipment is in actual use no anesthetic agent should be permitted to flow, and before its use the possibility of leaks in the closed system must be entirely eliminated.

Routinely, inhalation anesthesia should be carried out with a closed rebreathing system and carbon dioxide absorption technic. If nitrous oxide-oxygen-ether sequence is contemplated, the induction may be done with semiclosed nitrous oxide technic using 20 or more per cent oxygen plus carbon dioxide absorption. provides a slightly longer, but an entirely nonhypoxic, physiologic induction of anesthesia before ether is added to the system. Deep anesthesia for protracted periods of time should be avoided. Once the fracture has been reduced, the first plane of surgical anesthesia is adequate for the remainder of the surgery. The total amount of agent needed is small if the system is kept free of leaks. At the close of operation, the patient should leave the operating room with all reflexes active.

The technic of spinal anesthesia need not be reviewed. It is advisable to use a hyperbaric drug, such as 5 per cent procaine or 10 per cent pontocaine, in plasma, to aid in keeping the level of anesthesia low.3 To insure this, the table may be tilted slightly, injection made low and slowly, and if possible with the patient on the side with the fractured limb lowermost. Should the tap be impossible in the midline because of skeletal changes or lack of flexion, it may be feasible from the lateral sacral approach. It is advisable to have a sympathomimetic drug such as ephedrine or neosynephrine at hand, should the blood pressure fall rapidly and the pulse pressure become small. This precaution is of considerable importance in hypertensive patients, whose circulatory systems are more sensitive to rapid blood pressure fluctuations. In o'der persons it is safer to give repeated small doses of adrenergic drugs, rather than a single large dose. In the presence of intercostal paralysis or nausea and retching, oxygen by mask or nasal catheter is often beneficial. To add to the patient's comfort, the eyes should be covered with a cool moist piece of gauze, and the ears plugged with absorbent cotton. A small soft pillow under the head is helpful. The anesthetist should remain with the patient at all times, and make his presence known. This is a reassurance the patient deserves. It may often be advisable to provide enough inhalation anesthesia with one of the gases to produce unconsciousness,

The role of preoperative sedation cannot be overemphasized. Morphine and scopolamine in the ratio of 1:25 is ordinarily a good choice. Dosage should be moderate to avoid the excessive depression so easily obtained in the elderly. Morphine should be given cautiously to diabetic and asthmatic patients. A short-acting barbiturate may be added for apprehensive patients. Recent observations suggest the use of Demerol in place of morphine. A dose of 50 to 75 mg. provides adequate sedation with little evidence of respiratory depression.

An infusion should be started before operation or be immediately available in the operating room. Five per cent glucose in normal saline should be given slowly. If shock is impending, plasma or whole blood are preferable, the latter more so if blood loss is significant and anemia was present preoperatively.

At the time of the reduction of the fracture a reflex fall in blood pressure occurs occasionally. In this event, it is wise to ask the surgeon to stop the maneuver. Recovery is usually prompt. If not, or if the reflex recurs, small amounts of ephedrine may be given intravenously. In any event, the blood pressure should not be allowed to remain low, regardless of the pulse rate, for more than a brief period. It is more discreet to postpone the procedure when a period of waiting, drugs, and intravenous fluids do not improve the situation. A rare complication, which should be borne in mind when an old fracture is reduced, is the occurrence of fat embolism.

This report analyzes anesthesia for the Smith-Petersen nailing type of operation for fractured neck of the femur. All patients were over 60 years of age. For the most part, the actual surgery was done by members of the resident staff. and anesthesia was selected and administered by resident anesthetists of varied experience. The patients themselves were not well-cared-for old people, but were typical of the elderly patients admitted to a large municipal institution caring for indigent patients exclusively. With the tendency to treat these fractures as emergencies there was frequently inadequate psychic and medical preparation of the patient. No consideration has been given the functional results of surgery. The material has been grouped for presentation into four categories: (1) distribution of patients by age, sex, and physical status. (2) complications: preoperative, operative, and postoperative, (3) anesthesia, and (4) analysis of deaths.

Chart 1 summarizes the distribution of cases. In all there were 173, whose ages are broken down into ten-year periods; 42 per cent were males. The preoperative physical status was based on

tion, rather than to review the pharmacology of each comprehensively.

Nitrous oxide can be administered safely and satisfactorily. It must be avoided when sufficient relaxation cannot be achieved without some degree of hypoxemia. This cannot ordinarily be expected without fairly heavy preoperative sedation, which has its drawbacks in elderly people. In debilitated patients with flabby musculature, and in those who can be brought to the operating room with metabolic activity so depressed that the surgical requirements can be met without decreasing oxygen tensions, it is a good choice. It is vital that any degree of oxygen deficiency be avoided in the presence of hypertension, arteriosclerosis, and cardiac disease. This precaution applies equally well when nitrous oxide is used for induction of ether anesthesia. Nitrous oxide-oxygen mixtures are often satisfactory as complementary agents when regional or basal anesthesia is used.

of pre-existing systemic frequency disease requires that ether be used with caution. When a patient has diabetes, the use of ether is often avoided because of its tendency to increase blood sugar and produce ketosis. An anesthetic less stimulating to mucous secretion may aid in bringing about a smoother postoperative period in patients with bronchitis and emphysema. Diminished renal function, commonly evidenced by albuminuria, especially in hypertensive and arteriosclerotic patients, suggests cautious use of ether, which causes changes in renal epithelium. Where liver function is questionable the same precaution applies. Ether may often be the agent of choice for patients with heart dis-

Cyclopropane has many advantages for this group of patients. It does not alter blood sugar and is safe for diabetics. The liver and kidneys are not significantly affected. Secretion of mucus in the tracheobronchial passages is minimal. In addition it affords rapid induction and the period of recovery is short. The conducting mechanism of the heart, however, is sensitized by cyclopropane; this agent must be avoided in the presence of cardiac arrhythmias. digitalized patient should be given cyclopropane with extreme caution. Asthmatic patients should be watched carefully, as this agent has a parasympathomimetic effect and has caused severe bronchial constriction. The use of epinephrine should be avoided during cyclopropane

Local infiltration, if done properly, will secure pain relief at the operative site. Complete muscular relaxation, however, may not always be obtained. Excessive sedation is likely to be required. Pain, restlessness, and agitation may not only lengthen the operative procedure, but may become a factor in the onset of shock. There are some stolid patients to whom these objections do not apply.

Spinal anesthesia will provide muscular relaxation but the patient is still conscious and may become restless and disturbed. In cases of hypertension and decreased cardiovascular function, the frequently associated hypotension may embarrass the circulation. There can be no absolute guarantee that the level of spinal anesthesia will be, or will remain, "low," and sympathetic paralysis and reduced intercostal activity may result in both blood pressure fall and decreased ventilation. The use of "heavy" solutions, obtained by the addition of glucose or blood plasma helps to insure a low anesthetic level. The con tinuous technic, although more cumbersome affords a greater margin of safety, in that the drug can be given in small doses. The presence of the traction splint and arthritic changes in the aged patient offer mechanical difficulties in doing the spinal puncture.

The use of avertin in amylene hydrate should be mentioned. This drug is a basal anestheti and must be followed by an additional agent Postoperatively, because of its slow detovition tion, there is a more prolonged period of slee and inactivity, which is not desirable in the el derly patient, since this predisposes to respira tory morbidity. It is administered in a singl total dose and cannot be removed, should an untoward effect ensue. In addition, because is conjugated with glycuronic acid in the live and eliminated by the kidneys, it imposes som burden on these organs. Avertin exerts a di pressant effect on respiration, which is ofter times significant. It may also cause a marke depression of the arterial tension.

The use of intravenous anesthesia with the rapidly acting thiobarbiturates presents several similar drawbacks. It does not invariably provide good muscular relaxation, depresses respiration, and must be detoxified in the body. It use has not generally been advised for length procedures in elderly patients, as the total dosagrequired may be relatively large. Combination of several agents probably adds no safet to this operative procedure.

The technics of administration must meet the patient's requirements, plus those specific to the operation. Regional, rectal, and intravenous anesthetics possess the advantage of being not inflammable or nonexplosive. Inhalation agen are either inflammable, explosive, or aid combution. X-ray equipment is part of the surgic setup. Along with the usual precautions again static charge, additional protection may be so cured by draping the anesthesia machine and pages.

#### CHART 5 .-- ANESTHESIA

Inhalation	Number
Nitrous oxide-oxygen-ether	42
Cyclopropane Ethyl chloride-ether	70
Ethyl chloride-ether	1
Crolone	Š
•	Š
•	\$ 5
	131
Regional	
Spinal	11
Local	26
	37
Combined	31
Spinal and inhalation	1
Local and inhalation	- 3
Total	173

The postoperative complications, in order of frequency, were vomiting, cardiac failure, pneumonia, cough, arrythmia, headache, urinary retention, tachycardia, and distension. The frequency of each was surprisingly low. One hundred and twenty-five patients, or 72.2 per cent, had no postoperative complications.

Chart 5 considers anesthesia. All inhalation agents, except in one case, were administered by the to-and-fro carbon dioxide absorption technic. Inhalation anesthesia was chosen 131 times, or in 76.1 per cent of the cases, and regional anesthesia in 37 or 21.4 per cent. Four patients who had been given local infiltration and one spinal anesthesia required complementary inhalation anesthesia. As noted, cyclopropane was used as the sole agent 70 times, or in 53 per cent of all inhalation anesthesias. The frequency of use of any agent is not intended to indicate its relative merits, but rather the number of instances in which it was the agent of choice.

In Chart 6 deaths are tabulated. There were 11, or 6.3 per cent. The ages varied from 60 to 91, and averaged 73.5 years. Three were males and eight were females. Five were classified as having fair, and six poor physical status. Of the fatalities, four received nitrous oxide-oxygenether, one cyclopropane, and six local infiltration anesthesias. The total mortality in the inhalation cases was 3.7 per cent, and in the regional cases 16 per cent. The physical status of those who received inhalation anesthesia was recorded as poor for two, and fair for three. Of the fatalities in the local infiltration group four were classed as having poor, and two as having fair physical status.

Causes of death were few. One patient died of shock, evident during operation. Four died of circulatory causes, three of cardiac failure, and one of coronary occlusion. Four patients died of pneumonia, one case of which occurred in a lung extensively infiltrated with carcinoma. Two patients became "toxic," lapsed into coma, and died.

#### CHART 6 .- DEATHS

٨.	Number Average Age	Sex	Physical Status fair-5, poor-6
	11 73.5 years	M-3, F-8	fair-5, poor-6
В.	Anesthesia Used	· · · · · ·	,,
	Cyclopropane	3	
	Nitrous oxide-oxygen-	cther 4	
	Local	6	
C.	Cause		
	Shock	1	
	Circulatory	4	
	Pulmonary	4	
	Toxic-coma	2	

#### Summary

This report is an outline of the anesthetic management, and a summary of results from following it, in 173 cases. In previous reviews of this procedure, when anesthesia is mentioned. it is usually to list the agents or technics the surgeon has used or considers preferable. These include spinal or local infiltration, nitrous oxide, morphine, paraldehyde, ethylene.6 Ether was rarely recommended and cyclopropane not mentioned. Operative mortality has been reported variously from 1 to 17 per cent, usually averaging between 5 and 10 per cent. This is considerable improvement over conservative therapy, which still carries a 20 per cent average mortality. In this series all fatalities averaged 6.3 per cent, and what seems striking is a 3.7 per cent death rate for those cases done with inhalation anesthesia. These seem to be good results in what has been termed the simple fracture with the highest death rate in middle or old age.

Frequently, when confronted with a patient in poor condition, the surgeon tends to choose regional anesthesia as the safer procedure. While a definite answer is not intended to be found in this report, some deductions seem reasonable. With careful anesthetic management, operation under inhalation anesthesia was well tolerated by these elderly people. There were no deaths in the operating rooms. Postoperative morbidity was low and the rate of mortality favorable. No attempt was made to select this group for special care or supervision.

In concluding, it should be noted that anesthesia in the aged remains a serious problem. Progress has been achieved by developing general medical care and specific surgical technics. Further improvement is likely if anesthetic management is based on the physiological requirements of the patient, and knowledge of the effects of the anesthetic agents in the presence of preexisting disease. In this group of patients inhalation anesthesia seemed to meet these requirements.

#### References

<sup>1.</sup> Meyerding, H. W., and Pollock, G. H.: Am. J. Surg. 292 (Nov.) 1939.
2. Cordasco. Peters (A.) 7 Cordasco, Peter: Arch. Surg. 37: 871 (Dec.) 1938.

CHART 1 -- DISTRIBUTION OF CASES

Age	Number
60-69	69
70-79	64
80-89	36
70 <del>+</del>	4
Sex	•
Male	72
Female	101
Physical Status	101
Good	31
Fair	104
Poor	38

the seven group classification of the Committee on Records of the American Society of Anesthetists. Regrouping these patients for brevity, 31 might be considered to have good physical status, 104 fair, and 38 poor.

Charts 2, 3, and 4 summarize complications, and these are subdivided according to the anesthetic method or agent used. Preoperatively, this age group is associated with a multiplicity of positive physical findings. Grouping cardiac disease, hypertension, and generalized arterioscletosis, 91 per cent had circulatory involvement; 23.1 per cent had pulmonary complications, almost all of which were senile bronchitis and emphysema. Seven had had recent bronchopneumonia; 17.2 per cent had albuminuria, and the incidence of diabetes mellitus was 5.2 per cent. The high incidence of these significant

preoperative findings justifies the surgeon's concern.

The operative complications considered for the study were those that had bearing on the postoperative course. A fall in blood pressure was noted 40 times (23.1 per cent.) Four of these were believed due to reflex effect, five resulted from spinal anesthesia. It must be assumed that a drop in blood pressure not due to reflexes or spinal anesthesia indicates circulatory impairment and eventual approach of shock Shock was diagnosed in 8 cases, or 4.6 per cent, of this group. Diagnosis was purely on clinical standards. Tachycardia without changes in blood pressure occurred 19 times; again this may be considered a possible forewarning of shock. Arrythmia was seen in 9 cases, 5 of which were anesthetized with cyclopropane. Hypoxemia resulting from excessive secretions or laryngospasm occurred in 10 cases. These are significant in that they place an added burden on the circulation. A blood pressure rise was noted in 14 cases. Pain was a complication of eight of the twenty-six patients operated on with local anesthesia, and 1 of the 11 having spinal anethesia. Eighty-eight (50.8 per cent) of the patients had no operative complications, and of these approximately half were anesthetized with cyclopropane.

CHART 2 -- PREOPERATIVE COMPLICATIONS

Cardiac distress Hypertension Generalized arteriosclerosis Pulmonary complications Albuminura Diabetes	C <sub>5</sub> clopropane 28 24 16 20 15 6	Ether 25 12 6 5 8 0	Local 13 8 7 3 2	Spinal 1 2 1 4 1 1	Combination of Agents G 3 6 8 4 0	Total 73 49 36 40 30	Percentage 42 2 28 3 20 8 23 1 17 2 5 2
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CHART 3.—OPERATIVE COMPLICATIONS

Shock Blood pressure fall Tachycardia Arrythmia Hypoxemia Blood pressure rise Pain	Cyclopropane 3 17 3 5 6 8	Ether 3 8 4 1 1	Local  1 3 7 1 2 3 8 (30 per cent	Spinal 5 3 1 1 1	Combination of Agents 1 7 2 2 1 1 2	Total 8 40 19 9 10 14 12 88	Percentage 4 6 23 1 11 0 5 2 5 5 8 05
None	40	28	7	4	9	- 00	

CHART 4.-POSTOPERATIVE COMPLICATIONS

Nausea and vomiting	Cy clopropanc	Ether 3	Local	Spinal	Combination of Agents	Total	Percentage
Cardiac failure	4	3	.1			7	
Pneumonia Cough	$\frac{1}{2}$	ĩ	į			4	
Arrythmia	$\frac{2}{1}$		$\frac{2}{2}$	••	٠,	კ 2	
"Toxicity" Headache	,		1		1	2	
Retention Tachycardia	Ĩ		1	••		ĩ	72 2
Distension	53	зi	16	q	16	125	12 2
None							

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#### Member Physicians in the Armed Forces

#### Supplementary List

The following list is the fourteenth supplement to the Honor Roll published in the December, 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15. April 15, June 1, July 1, August 1, September 1, October 15, November 15, and December 15 issues.—Editor

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808 Montgomery St., c/o Pashenz. Brooklyn 13, N.Y.

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Islip, N.Y.
Cetner, J. A.
248 State St., Albany 6, N.Y.

Davidoff, E. (Maj.) Craig Colony, Sonyea, N.Y.

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к

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Schwartz, J. 8102 21st Ave., Brooklyn 14, N.Y. Spencer, H. J. 24 W. 10th St., New York 11, N.Y.

Taus, H. H. (Lt.)
Camp Adair, Ore.
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U.S. Coast Guard Infirmary, Rehoboth, Del.

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#### HITLER AND MATHEMATICS

In 1926 the International Education Board, lounded by Mr. John D. Rockefeller, Jr., made an appropriation of \$275,000 to the University of Göttingen in Germany to build and equip a Mathematical Institute. For many decades Göttingen had been an important mathematical center, but the first World War left it impoverished. The new funds in 1926 enabled it not only to add to its physical facilities for mathematical research but to strengthen its already brilliant faculty. In a few years Göttingen became the world's chief center for advanced study in mathematics and physics, and its students arrived in increasing numbers from many countries.

Then the Nazi régime took over Germany, and its effect on Göttingen was drastic and immediate. The Jews on the faculty were thrown out, and their colleagues of Aryan stock, shocked by this intolerance and unable to live in the stifling intellectual atmosphere, resigned. By 1939 only one of the original faculty remained active at the Institute. Most of the others came to the United States.

In view of what has happened in the last few years it seems ironical that this German institution was brought to maturity by American funds. An even deeper irony lies in the fact that the blind fanaticism of the Nazis succeeded in driving to America some of the world's leading mathematicians. There appears to be a universal principle about intolerance: it reacts on those who practice it. Just as many countries were enriched by the Huguenot immigration that followed the revocation of the Edict of Nantes, so the United States and England have greatly profited by the scholarship driven out of central Europe through the self-defeating bigotry of Nazi ideology.

If Hitler had set out, with benevolent intent, to build up America as the world's great mathematical center, he could hardly have achieved more successfully the result which his ruthlessness has accomplished. During the last decade 131 leading European mathematicians have migrated to the United States. Of these, 16 came from the faculty of Göttingen. The School of Advanced Study at Princeton, Brown University, New York University, Harvard, Chicago, the University of Wisconsin, the Massachusetts Institute of Technology are only a few of the American institutions which have profited by this migration.-Rockefeller Foundation Review for 1942

Liberty will not descend to a people; a people must arise themselves to liberty; it is a blessing that must be carned before it can be enjoyed. -Abraham Cowley

Professor Paresis, having read that a vegetarian diet is best for those who would be beautiful, meekly suggests that it does not seem to have done much for the hippopotamus.-Illinois M.J.

3. Papper, E. M., and Rovenstine, E. A.: J.A.M.A. 119: 1248 (Aug.) 1942.
4. Fornstiere, Roger J.: J. Connecticut M. Soc. 7: 243

(April) 1943.

5. Rovenstine, E. A., and Batterman, R. C.: Anesthesiology 4: 126 (March) 1943.
6. Murray, C. R.: Christopher's Textbook of Surgery, Philadelphia, W. B. Saunders Co., 1939.

#### Discussion

Charles C. Wells, Syracuse—This is an important though infrequently discussed topic of anesthesia. Dr. Apogi is to be congratulated on her excellent presentation.

With better health and greater life expectancy in those of riper years, it may be necessary to readjust our ideas as to where old age actually begins. Years are a relative measure of age, as the ravages of time seem to be more prominent in some persons than in others. It has been my custom to classify my patients for their anesthetic risk more by their apparent physical age than by their chronologic age.

As a group, the aged take very kindly to anesthesia, and do not require heavy sedation or anesthesia. The smallest amount of anesthetic necessary to satisfactorily relax the muscles and prevent pain reflexes seems to be the optimal amount.

Since it is desirable that aged patients be returned to consciousness and ability to move as soon as possible, I thoroughly agree that it is wise to limit or avoid long-acting sedatives and narcotics. As the aged are easily affected by lack of oxygen, it is necessary to maintain a patent airway and a high percentage of oxygen at all times.

I do not hesitate to use ether, when needed, to deepen anesthesia with nitrous oxide or cyclopropane. It is far safer to do this than to run into ex-

cessive anoxemia with the former, or cardiac complications with the latter, when these anesthetics are pushed too far. Kidney complications from ether may come reflexly through stimulating the nerve endings of the upper respiratory tract. If these reflexes are first obtunded by some nonirritating anesthetic, such as nitrous oxide or cyclopropane, ether may be added with no such irritating effects.

As essential as rules and suggestions may be in the conduct of anesthesia for the aged, there is nothing that can take the place of a trained medical anesthe tist in this particular type of borderline surgical and anesthetic risk. Careful preoperative evaluation of the risk, notation of the patient's previous operative and anesthetic experiences, and reassuring suggestions by the anesthetist not only familiarize the anesthetist with the physical condition of the patient, but also secure the patient's confidence and cooperation.

The Smith-Petersen nailing operation for the fractured neck of the femur is very typical of operations in the aged. Other types of operations on the aged could be studied with profit. We seldom use avertin, intravenous, or spinal anesthesia in this type of case. Our usual technic is to introduce anesthesia with a local anesthetic, and perform the more painful conclusion under nitrous oxide or cyclopropane-oxygen anesthesia. I do not recall a single death in the operating room or a postoperative anesthetic death with this method.

Carefully studied and cared for cases of this group should very seldom be denied the benefits of surgery, which adds so much to the comfort and usefulness of the patient. Anesthetists rejoice in being able to help reduce the morbidity and mortality of this type of case.

#### BRITISH JOURNAL OF INDUSTRIAL MEDICINE

The British Medical Journal announces the publication commencing in January of an addition to the specialist journals published by the British Medical Association—the British Journal of Industrial Medicine. The project has often been discussed in recent years, and the final stimulus to action came in the shape of a formal request to the British Medical Association from the Association of Industrial Medical Officers. An editorial board was formed, and it was intended that Sir Henry Bashford, chief medical officer of the post office, would be editor-in-chief, but his recent appointment as medical adviser to the treasury prevents this. It is anticipated that Dr. Donald Hunter of the London Hospital will take his place. The other editors will be Dr. A. J. Amor, Dr. M. W. Goldblatt, Dr. D. C. Norris, Dr. Donald Stewart, and Mr. R. W. Watson The British Medical Learned and Stewart and Mr. R. W. Watson The British Medical Learned and Mr. R. W. Watson The British Mr. R. W. Watson The British Medical Learned and Mr. R. W. Watson The British Mr. R. W. Watson The British Mr. R. W. Watson The British Mr. R. W. Watson Th Jones, a surgeon. The British Medical Journal says

that since 1939 the country has been overwhelmingly conscious of the extent to which it owes its safety to the health of the worker in industry. Industrial medicine is not just industrial toxicology; in fact, this is but a small part of it. A whole range of problems face the worker, the management, and the doctor-the effect on the worker and his work of temperature and humidity, of the intensity and direction of illumination, of posture and change of posture, of rest pauses and recreation, of washing facilities, of canteens, and of an efficient accident service. There are also the important psychologic problems of monotony, relations between foreman and worker, selection of work, and so on. From industrial medicine a steady flow of observation and research is hoped for, and much of this should find an outlet in the British Journal of Industrial Medicine.

#### ARMY WANTS 1,350 MORE OCCUPATIONAL THERAPISTS

Within the next year, the Army will add 1,350 additional occupational therapists to its staff to aid in the rehabilitation of the wounded. Since only 350 new graduates will enter the field in that period, 1,000 will have to be drawn from civilian life.

The Reconditioning Division, office of the Sur-

geon General, hopes to return every wounded soldier to the highest possible degree of ability, according to Mrs. Winifred C. Kalımann, superintendent of Occupational Therapy. Its threefold program involves physical and mental care and education.—J. Med. Soc. Co. N.Y.

#### Medical News

#### Center for Study of Physical Medicine

THE establishment of the first center for the scientific study and development of physical nedicine as a branch of medical practice was an-nounced on December 15 by Basil O'Connor, president of the National Foundation for Infantile The center will be in the Graduate School of Medicine of the University of Pennsylvania at Philadelphia.

To set up this center, Mr. O'Connor stated the National Foundation for Infantile Paralysis has made a grant totaling \$150,000 for a five-year period from January 1, 1944, to December 31, 1948.

Mr. O'Connor said, "We believe this to be one of

the most important steps which the National Foundation has taken. This will not only advance the treatment of infantile paralysis, but of many other diseases as well."

Mr. O'Connor explained that today there are only a few schools or departments connected with any of the medical training centers which are equipped to explore thoroughly on a sound scientific basis the possibilities of physical medicine.

This is but the first step in a program which, Mr. O'Connor said, should afford a scientific basis for physical therapy and lead to the establishment of a

more desirable teaching program.

"If this branch of medicine can be given a sound professional standing," Mr. O'Connor declared, "medical men of the highest calibre will be attracted to it and practitioners will fully utilize its advantages. If research and study show there is little or no basis for treatment by some of the physical agents, then an equally great service will have been rendered, even though it be principally

negative in character.

"Physical medicine plays a most important part in the treatment of infantile paralysis. Since it was first organized, the National Foundation has been continuously concerned with this phase of treatment. It has spent during the past six years over \$350,000 to educate and train physical therapy technicians. An additional \$364,000 has been granted to laboratories and universities to study many problems in physiology and medicine having a close connection with the practice of physical therapy, but never before has it been possible to combine in one place both medical research and teaching in this important field.'

The Center for Research and Instruction in Physi-

cal Medicine will include:

A center for development of physical medicine as a scientific part of the practice of medicine,

A training center for medical leaders and

teachers in this branch of medicine, and

3. A school for training technical workers under the guidance of such professional and scientific leadership, such a school to be only incidental to and dependent upon the first two purposes

The Departments of Anatomy, Physiology, Pathology, and other basic sciences of the University of Pennsylvania will cooperate in this proposed program. The general direction will be assigned to Dr. Robin C. Buerki, Dean of the Graduate School of Medicine.

#### Neff Is Executive Director of Cancer Society

J. LOUIS Neff, of East Williston, has been appointed Executive Director of the American Society

for the Control of Cancer, effective January 1, 1944.

Mr. Neff has been executive secretary of the Nassau County Medical Society since 1923 and has also been secretary of the Nassau County Cancer Committee since its formation in 1928.

In 1933 he helped to organize the Nassau County Tumor Clinic, now being conducted by Meadow-brook Hospital, and served as its executive director until it was transferred to Meadowbrook from its original location at the Tuberculosis Sanatorium in

Farmingdale.

He has been identified with public health and welfare organizations of the county for many years. He is treasurer of the Nassau County Council of Public Health Nursing, and of the Nassau County Central Index.

He is a director of the Nassau County Tuberculosis and Public Health Association and of the County Nutrition Council. He helped to organize the Emergency Medical Service of the Nassau County War Council and is still a member of its staff. He is also chairman of the Committee on Health and Safety of the North East District of the Nassau County Boy Scout Council.

#### Announcement of the 1944 Examinations of the American Board of Obstetrics and Gynecology

THE next written examination and review histories (Part I) for all candidates will be held in various cities of the United States and Canada on Saturday, February 12, 1944, at 2:00 P.M.

Arrangements will be made as far as is possible for candidates in military service to take the Part I examination (written paper and submission of case records) at their places of duty, the written examination to be proctored by the commanding officer (medical) or some responsible person designated by him.

Material for the written examination will be sent to the proctor several weeks in advance of the examination date. Candidates for the February 12, 1944, Part I examination, who are entering military service, or who are now in service and may be assigned to foreign duty, may submit their case records in advance of the above date, by forwarding them to the office of the Board Secretary. All other candidates should present their case records to the examiner at the time and place of taking the written examination.

The Office of the Surgeon General (U.S. Army) has issued instructions that men in service, eligible for Board examinations, be encouraged to apply and that they may request orders to detached duty for the purpose of taking these examinations when-

ever possible.

All candidates will be required to take both the

# Woman's Auxiliary

# To the Medical Society of the State of New York

MRS I Leslie Sullivan, president of the Woman's Auxiliary of New York State, was the guest speaker at the annual luncheon, held at the De Witt

Clinton Hotel, in Albany, in December

The usual representation from Columbia, Rensselaer, and Albany counties attended At the speaker's table were Mis F Leslie Sullivan, Dr John B Hoinet, Di Philip L Forster, Mrs J S Lyons, Mis Alfred L Madden, Mis John J Rainey, Mrs H J Noerling, Mrs J P Lasko, and Mis H G Henry

Mrs Sullivan gave a report of the national convention at Chicago, giving both the serious and the humorous sides of the meeting. The importance of defeating the Wagner-Murray-Dingell bill was the outstanding issue in all parts of the United Mis Sullivan's message brought cheer and inspiration to the members, giving everyone present an incentive to spend more time and energy in our county auxiliaries

#### County News

Albany. At a membership tea in September eight new members were introduced, making a total of twelve new members this year. The total membership is one hundred and twenty-eight. Mrs James Hogan sold \$34,825 in bonds in the third Wai Bond drive. Four president's pins were presented to the present and past presidents at the September

In October Dr Joseph Kiernan, chairman of Maternal Welfare Committee of the Albany County Medical Society, discussed the proposed federal

aid to the wives of service men

The annual card party and bake sale was held in November Mrs Lyle Sutton was in charge William Richtmyer and Mrs Emerson Kelly planned to assist in the sale of tuberculosis stamps at the De Witt Clinton Mis Joseph Kiernan has been appointed War Activity chairman tribution of twenty-five dollars has been sent in to the Physician's Fund Mrs John O'Keeffe is Six members are working the Hygera chairman Six members a on the Red Cross Blood Donois' Service

Dr Joseph Lawrence, executive officer of the Medical Society of the State of New York, spoke at the November meeting Di Lawrence explained the disadvantages of the Wagner-Murray-Dingell

Mis Alfred Madden and Mis Roy Kemp have formed a "Speaker's Bureau". Seven members have volunteered as speakers. Over a thousand women have been contacted and the pending legislation

explained

On January 20 Dr Robert Korns, epidemiologist of the New York State Department of Health, will address the auxiliary on "Tropical Diseases and Then Effects on the Public Health" Dr. Korns has just returned from Central and South Amer-

The month of April is being set aside for a collec-

tion of medical supplies for the Medical and Sugged Relief Society in New York

Broome. The November meeting was need in the Nurses' Home of the Wilson Memorial Hospital In Johnson City Di Robert Swan, the Evecutive Secretary of the New York State Committee of the American Society for the Control of Cancer, give a very interesting talk on "Progress in the Control of Cancer" Lt Mary Robinson of the W4C recruiting station in Binghamton showed a movie entitled "We're in the Trmy Nou," showing the WAC during her period of training

Columbia. At the October meeting, Dr Suc Thompson, head of the County Health Depurtment, was the guest speaker. She gave a general iesume of public health work, stressing what could be expected as postwar problems

The November meeting was held at the home of Mis John L Edwards Miss Edith Casey, County Agent for Dependent Children, was the guest speaker

Mis Hugh Henry, Mrs William Collins, and Mis H J Noeiling attended the annual December luncheon meeting in Albany

Erie. Mis Patrick J Hurley has been elected The December meeting was held at the president Chinese Room in the Hotel Statler The speaker were Mrs Michael Catalano and Di Joseph C O'Gorman At this meeting reports from all committees were received, officers were elected, and delegates to the next convention were appointed

Nassau. The November meeting was held in the Nassau Hospital auditorium A box luncheon was enjoyed In the afternoon the members made diessings for advanced cancer patients, under the

supervision of Mrs Ethel Goodwin

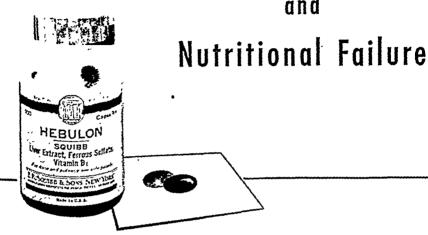
The December meeting, held in the auditorium of the Nassau Hospital, was a Christmas party Cufts for a foster child, boy or girl, ages from 6 to 12 years, were donated by members Miss Yolande Lyon, assistant to Dwight Anderson of the Bureau of Public Relations of the State Society, spoke to the auxiliary on methods of defeating the pending socialized medicine bill Mrs Luther H Kice gave some highlights from the National Executive Board meeting, and explained what is being done all over the country to defeat this bill

Schenectady. A luncheon was held at the Hotel an Curler This was the first meeting of the Van Curler Mis James Blake preauxiliary for the season Mis Robert Schuig, chief probation officer sided of the Children's Court, spoke on juvenile delin-

quency

A dinner dance was held at the Mohank Country Mrs Carl Runge, assisted by Mrs Charles Routke, Mrs Alfred Grussner, Mis Joseph Cortest, Mrs Joseph Cornell, Mrs David Vrooman, Mrs E B O'Keefe, Mrs Carmine Loffredo, and Mrs Thomas Admolfi, was very efficient as chairman of Many reservations the dinner-dance committee were made

# Secondary Anemia



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Part I examination and the Part II examination (oral clinical and pathology examination). Candidates who successfully complete the Part 1 examination proceed automatically to the Part II examination to be held later in the year.

Headquarters for the Part II examination will be the Hotel William Penn, Pittsburgh, Pennsylvania, from June 7-13, 1944. Notice of the exact time of the examinations will be sent all candidates well in advance of the examination date. Candidates in military or naval service are requested to

keep the secretary's office informed of any change in address.

If a candidate in service finds it impossible to proceed with the examinations of the Board, deferment without time penalty will be granted under a waiver of our published regulations as they apply to civilian candidates.

Applications for the 1944 examinations are closed. For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

#### Annual Tuberculosis and Health Conference in New York City

THE Annual Conference of the New York Tuberculosis and Health Association will be held at Hotel Pennsylvania on Wednesday, February 2. There will be morning section meetings on tuberculosis, the heart diseases, social hygiene, and dental health in industry. The meeting on the heart diseases will be held at Hotel Governor Clinton.

The luncheon meeting, which will bring all the groups together, will be held in the Grand Ball Room of the Pennsylvania at 12:45 o'clock. The speakers will be Rear Admiral Charles S. Stephenson, (MC), United States Navy, and Sir Gerald Campbell, G.C.M.G., British Minister in Washing-ton and Special Assistant to the British Ambass-

#### A.M.A. Points to Principles Governing Evolution of Medical Practice

THE continuing evolution of medical practice, based on sound experimentation, has been urged repeatedly by the American Medical Association, through its House of Delegates, Board of Trustees, and Council on Medical Service and Public Relations, the Journal of the Association declares in its November 20 issue. In an editorial summarizing the principles to govern the evolution of medical practice, adopted by the Representative Committee of the British Medical Association, the Journal points out that the final recommendations of the British group advocate the same approach to the problem of developing a sound system of medical service to meet the needs of all persons in

a community. The Journal says:
"Elsewhere in this issue appear the principles to govern the evolution of medical practice adopted by the Representative Committee of the British Medical Association and by representatives of many official bodies in Great Britain. This group comprised representatives of general practice, consultant, and specialistic practice, public health, rural practice, medical staffs of provincial non-teaching hospitals, and others. Special emphasis should be placed on the principle that the health of the people depends primarily on the social and environmental conditions under which they work, and that improvement and extension of measures to satisfy these needs should precede or accompany any future organization of medical service. Also fundamental is the principle that the efficiency of any medical service depends primarily on medical and scientific knowledge, which, in turn, is based on medical education.

"The British group establishes the principle that the function of the state should be to coordinate existing provisions, both official and nonofficial, to augment these where necessary, and to secure that they are available without economic barriers. Supplementary to this is the statement that the state should confine itself within these wide limits, invading the personal freedom of both citizen and doctor only to the extent which the satisfaction of these functions demands. The platform of the American Medical Association likewise emphasizes the importance of an agency of the federal government, under which shall be coordinated and administered all medical and health functions of the federal government, exclusive of those of the Army and Navy, and the allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health, and the care of the sick on proof of such The medical profession has not opposed appropriations by Congress of funds for medical purposes. It asks that the need be shown and that funds be locally rather than nationally administered.

"The British Representative Committee again insists on free choice as between doctor and patient as fundamental to sound medical practice and states emphatically that it is not in the public interest that the state should invade the doctor-patient relationship. It is, no doubt, for this reason that the Representative Committee says that it is not in the public interest that the state should convert the medical profession into a salaried branch of central or local government service."

#### Medical Officer Urges Course in Psychiatry for All Doctors

SHORT intensive psychiatric training courses for physicians are very much in order not only to physicians are very much in order, not only to meet the need of the armed forces for more psychiatrists but also for the tremendous postwar job in this field, Lt. Col. William C. Menninger, Medical Corps, Army of the United States, Neuropsychiatric Consultant, Fourth Service Command, declares in the Journal of the American Medical Association for November 20.
"The second major concern confronting every

physician, both in and out of the Army," Colonel Menninger says, "is the number of psychiatric cases which the war experience has disclosed in our general population. The medical and social implications of this group are beyond our present ability to estimate.

"The third major problem confronting the army psychiatrist is the rapid and most effective dis-position of these maladjusted individuals in the

[Continued on page 194]



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DIN THE MARCH OF DIMES...FIGHT INFANTILE PARALYSIS...JANUARY 14-31

[Continued from page 192]

Army. The first purpose of the Army is to win the war, and consequently these soldiers unfit for service must be given over to the care of civilian agencies and civilian physicians with the hope that they will accept the responsibility and provide treatment for these men in accordance with our most modern psychiatric concepts.

The psychiatric problems of the Army, Colonel Menninger explains, "should be of vital interest and concern to every citizen interested in the war effort and particularly to medical men. They should be of interest, first, because of the great number of men whose army experience has brought to light their need for medical and particularly psychiatric help. This fact may be vividly portrayed by these figures: an average of 8 to 10 per

cent of men examined for military service are rejected for psychiatric reasons, and nearly 30 per cent of the discharges from the Army are for psychiatric reasons. In contrast, only 2 per cent of the medical profession are psychiatrists. The social implication of these figures is enormous, but their importance to the medical profession is even greater.

"Every internist is aware of the fact that even in normal circumstances in our prewar practice between 40 and 60 per cent of the patients seeking medical help present only functional disturb-

The Colonel points out that, despite the lack of trained psychiatrists and the lack of facilities, the caliber of neuropsychiatry practiced in the Army is surprisingly good.

#### County News

#### Albany County

Albany Medical College graduated its first class of "GI doctors" on December 23, when seniors who have been studying in the Army Specialized Training Program and the Navy V-12 Program completed requirements for their degrees.

Twenty-four men in the 3,210th Service Command Service Unit, commanded by Lt. D. J. Sterlinske, were commissioned first lieutenants in the Medical Corps Reserve and have left to serve internships. On completion of intern training they will be called

to active duty. The men who are completing their training were commissioned second lieutenants in the Medical Administrative Corps Reserve when they entered medical college. However, at the request of the government they resigned their commissions to be

assigned in the training program as privates.

Ptc. John Eckel, of Albany, has been awarded the
S. Oakley Vander Poel Prize for the senior making the best bedside examination in general medicine.

The Alumni Association medal for a member of the graduating class whose qualities give promise of typifying the ideal alumnus was awarded to Pfc. John K. Shearer, of Rock Tavern.

Pfc. Paul Former and Pfc. David Gelbard, freshman training students, were awarded prizes for preparing the best anatomic specimens.\*

Dr. John B. Horner has been elected president of the Albany County Medical Society, succeeding Dr. Morgan O. Barrett.

Others elected included Dr. Arthur J. Wallingford, vice-president; Dr. Homer L. Nelms, secretary; Dr. Frances E. Vosburgh, treasurer; and Dr. Emerson C. Kelly, historian.

Dr. Barrett, the retiring president, was named chairman of the board of censors, which will be composed of Dr. John J. Clemmer, Dr. Edward P. McDonald, Dr. Donald D. Prentice, and Dr. Clarence Traver.

Delegates to the State Convention are Dr. Nelms, Dr. James Lyons, and Dr. Stanley E. Alderson, Alternate delegates are Dr. Raymond F. Kircher. Dr. Earle W. Wilkins, and Dr. Jacob L. Lochner, Jr.\*

Dr. George M. Glann has closed his office at Fonda where he has practiced for several years and will locate at Albany.

#### Broome County

At the annual dinner meeting and election of officers of the Broome County Medical Society, held December 14, 1943, the following officers were elected for 1944: president, Dr. Frank G. Moore, Endicott; vice-president, Dr. Victor W. Bergstrom, Binghamton; secretary, Dr. J. C. Zillhardt, Binghamton; assistant secretary, Dr. A. L. Standfast, Binghamton; treasurer, Dr. Leonard J. Flanagan, Binghamton; and assistant treasurer, Dr. Ralph C. Goudey, Binghamton.

Chairmen of committees are: legislative, Dr. George C. Vogt, Binghamton; public relations, Dr. Charles M. Allaben, Binghamton; public health, Dr. Ralph M. Vincent, Binghamton; milk commission, Dr. Perry H. Shaw, Binghamton; library, Dr. Stuart B. Blakely, Binghamton; membership, Dr. Ralph J. McMahon, Johnson City.

Elected to the Compensation Board for a term of three years are Dr. George W. Danton, Endicott; Dr. Ralph C. Goudey, Binghamton; and Dr. Charles M. Woodburn, Binghamton.

The board of censors consists of Dr. J. J. Cunningham, Binghamton; Dr. Walter J. Farrell, Johnson City; Dr. H. I. Johnston, Binghamton; Dr. A. J. Stillson, Binghamton; and Dr. George C. Vogt,

Binghamton. Delegates to the State Society are: Dr. Victor W. Bergstrom, Binghamton, and Dr. H. I. Johnston,

Binghamton. Dr. Elton R. Dickson, Alternate delegates: Binghamton, and Dr. George C. Vogt, Bingham-

Cattaraugus County

Ellicottville's oldest doctor and one of Western New York's oldest practicing physicians, Dr. Charles M. Walrath, observed his eighty-eighth birth-day at his home on December 5. He was the recipient of a shower of congratulations and many birthday cards and gifts.

Dr. Walrath has been actively engaged in the practice of medicine in his community for over sixty

A former mayor of the village, he has also served on the school board and held other public offi-

He is well known in county medical circles and is a member of the Cattaraugus County Medical Society.\*

[Continued on page 196]

AN Effective BARRIER

ompetent clinical investigation has established the effectiveness of a properly fitted occlusive diaphragm. Attention, however, should be directed to the need of not only providing for the protection but also the comfort of the patient, in order to assure continued use of the diaphragm.

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#### [Continued from page 194]

#### Cayuga County

Dr. Harold G. Muller has arrived in the village of Cato to start the practice of medicine.

Dr. Muller has been practicing in Lysander, where he has made his home for four and one-half years. He came there directly from a small town in Germany, after Hitler and his Nazis took over the country.

Dr. William R. Johnson, who served the community for thirteen years, has been a naval lieutenant for more than a year. For that period there has been no doctor residing in Cato.\*

#### Chautauqua County

Lt. Comdr. Donald R. Nelson, first Jamestown physician to see active duty with the Navy, distinguished himself when the Marines took the atoll of Tarawa in the Jap-controlled Gilberts, the bloodiest battle in all Marine history, according to an announcement from the Pacific war zone by the Associated Press.

Commander Nelson, with Lt. Comdr. George Stanberry, of Vandalia, Illinois, headed a temporary hospital set up on the beach after the first landings and worked for many hours in caring for the wounded

and dying.

The hospital in charge of the Jamestown physician, according to the dispatch, was set up under fire and operated during the terrible seventy-six hours it took to take the island and kill off 3,000 Japs.\*

#### Chenango County

At the annual meeting of the Chenango County Medical Society, held at Norwich, New York, on December 14, 1943, the following officers were elected for 1944: president, Dr. Edwin F. Gibson, of Norwich; vice-president, Dr. Archibald K. Benedict, of Sherburne; secretary and treasurer, Dr. John H. Stewart, of Norwich.

The following committee chairmen were appointed: legislative, Dr. Jaynes M. Crumb, of South Otselic; economics, Dr. Edward Danforth, of Bainbridge; public health and education, Dr. Leslie T. Kinney, of Norwich; subcommittee on tuberculosis, Dr. A. K. Benedict; maternal welfare, Dr. Carl D. Mascham of Greene; council or medical Dr. Carl D. Meacham, of Greene; council on medical service and public relations, Dr. Albert H. Evans, of Guilford.

Members joined the Rotarians for lunch at the

Chenango.

The physicians were addressed by Dr. Wallace B. Hamby, of Buffalo, professor of neurologic surgery and assistant professor of neurology at the University of Buffalo School of Medicine. His

subject was neurologic surgery.

The Kenny hot-pack was demonstrated to the physicians by Miss Ruth Griffin, state orthopaedic nurse. Miss Louise Campbell, field demonstrator of tuberculosis and public health in Chenango County, also addressed the physicians briefly.\*

#### Cortland County

At the annual meeting of the Medical Society of the County of Cortland, held on December 17, 1943, the following officers were elected: president, Dr. R. P. Carpenter, Cortland; vice-president, Dr. D. B. Glezen, Cincinnatus; secretary, Dr. W. A. Wall, Cortland; and treasurer, Dr. F. F. Sornberger,

The constitution and by-laws with the corrections made by the council at their meeting of October 14, 1943, were adopted by the society.

The president announces the following committee

appointments: Compensation-Arbitration: appointments: Compensation-Arbitration: Dr. Sornberger, chairman; Dr. C. J. Kelley, Cortland; Dr. J. E. Wattenberg, Cortland; legislation: Dr. Wall, chairman; Dr. Hugh Frail, Marathon; Dr. Hans Hirsch, Cortland; and Dr. A. V. Runfola, Cortland; public health: Dr. C. E. Chapin, Cortland, chairman; Dr. E. K. Alexander, Homer; Dr. Glezen; and Dr. R. P. Higgins, Cortland; public relations: Dr. D. R. Reilly, Cortland, chairman; Dr. O. A. Bennett, McGraw; Dr. P. W. Haske, Homer: and Dr. S. A. Ver Noov. Cortland. Homer; and Dr. S. A. Ver Nooy, Cortland.

#### Erie County

The 100th anniversary of the birth of Dr. Robert Koch, discoverer of the tuberculosis bacillus in 1882, was observed in Buffalo's Museum of Science on December 11, 1943, with a talk by Dr. David K. Miller, head of the department of medicine and laboratories in Meyer Memorial Hospital.

The talk was supplemented by exhibits, which were on view throughout the month of December. Sponsoring organizations were: the Academy of Medicine; the Department of Health of the Museum of Science; the Tuberculosis Conference Committee; the Erie County Medical Society; the State Department of Health, Buffalo District; the University of Buffalo School of Medicine; and the Buffalo and Erie County Tuberculosis Association.\*

#### Essex County

The annual meeting of the Medical Society of the County of Essex was held October 5 in Eliza-

bethtown, New York.

Dr. Joseph P. Garen, of the State Health Department, was guest speaker and discussed the plan under which federal money is allocated for maternity care of service men's wives. The society voted to give tentative acceptance to the plan until July

to give tentative acceptance to the pair and 1, 1944.

The following doctors were elected officers for the year 1944: president, Dr. G. L. Knapp, Ticonderoga; vice-president, Dr. Robert Gray, Westport; secretary and treasurer, Dr. J. E. Glavin, Port Henry; censors: Dr. Samuel Volpert, Lake Placid; Dr. Albert Hayes, Willsboro; Dr. T. J. Cummins, Mineville; delegate to the State Convention, Dr. Joseph Geis, Lake Placid; alternate delegate to the State Convention, Dr. T. R. Cummins, Ticonderoga; delegate to the Fourth District Branch, Dr. Samuel Volpert, Lake Placid; alternate delegate to the Fourth District Branch, Dr. Violet McCasland, Moriah. Dr. Violet McCasland, Moriah.

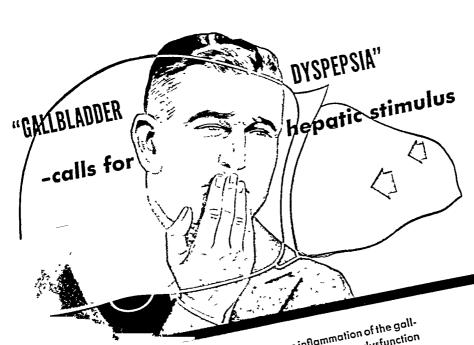
#### Greater New York

Because available information on pertinent as pects of medical practice in Greater New York is either out of date or incomplete, the subcommittee on medical services of the Mayor's Committee on Medical Care, of which Dr. J. Stanley Kenney is chairman, has drafted a questionnaire to be sent to physicians in the city. It is hoped that all recipients will answer and return it promptly.

The information desired touches principally on the distribution of specialties, the time spent in private practice and free service, the patient load per physician, the professional affiliations of physi-cians, medical income, and medical interest in salaried positions.

#### Greene County At the annual meeting of the county society,

[Continued on page 198]



HETHER biliary stasis arises from inflammation of the gallbladder, or of the biliary ducts, or from liver dysfunction -mere emptying of the gallbladder (through cholagogic therapy) cannot provide adequate relief. The liver itself must produce more bile ... fluid enough to pass the biliary channels

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LITERATURE ON REQUEST (Dehydrocholic Acid Maltbie)

THE MALTBIE CHEMICAL COMPANY

#### [Continued from page 196]

held on October 28, 1943, the following officers were elected: president, Ray E. Persons, of Cairo; vice-president, Edwin G. Mulbury, of Windham; secretary, William M. Rapp, of Catskill; treasurer, Mahlon H. Atkinson, of Catskill; delegate to the State Society, Kenneth F. Bott, of Greenville.

#### Herkimer County

Dr. Dominick F. Aloisio, of Herkimer, was elected president of the Herkimer County Medical Society at its 137th annual meeting held on December 15.

at its 137th annual meeting held on December 15. He succeeds Dr. Byron G. Shults.

Other officers named were: first vice-president, Dr. F. M. Neuendorf, Mohawk; second vice-president, Dr. Brian J. Kelly, Frankfort; third vice-president, Dr. Charles Lanning, Herkimer; librarian, Dr. G. S. Eveleth, Little Falls; secretary, Dr. Fred C. Sabin, Little Falls; treasurer, Dr. Albert L. Fagan, Herkimer; board of censors: Dr. F. H. Moore, Herkimer; Dr. Sabin, Dr. Harold Buckbee, Dolgeville; Dr. H. J. Sheffield, Frankfort; and Dr. C. C. Whittemore, Ilion.

Dr. Aloisio. by virtue of his office, was chosen

Dr. Aloisio, by virtue of his office, was chosen delegate to attend the State Medical Society's annual convention. Dr. Neuendorf was named first

alternate delegate.

Dr. Aloisio named the following as members of his executive committee: Dr. B. G. Shults, Dr. F. J. Moore, and Dr. L. P. Jones, Ilion; Dr. George J. Frank, Frankfort; Dr. Sabin, and Dr. A. B. Santry, Little Falls.

Following the annual custom, the meeting was devoted to a lecture on old-time practices of medicine, this year's essay being given by Dr. Eveleth on "Medicine in Retrospect over Fifty-five Years."

Under terms of the will of Dr. A. W. Suiter, who left a legacy to the medical society, that group must devote at least one meeting each year to medical practices.

A turkey dinner completed the session.\*

#### Jefferson County

Dr. L. L. Samson, president of the county society, has appointed the following committee chairmen: public relations, Dr. Joseph D. Olin, Watertown; program, Dr. Edwin W. Roberts, Watertown; legislative Dr. Horeld I. Colonia, Marchael C. L. Alexandria, Physical Research (1997). tive, Dr. Harold L. Gokey, Alexandria Bay; public health, Dr. Sumner E. Douglas, Adams; economics, Dr. Harlow E. Ralph, Belleville; cancer, Dr. Frederic R. Calkins, Watertown.

Dr. Roger F. Hisey, of Gouverneur, has made arrangements to take over the practice of Dr. Terry Montague in Adams.

Dr. Hisey practiced medicine in Antwerp until Pine Camp expansion took over a large part of the

territory when he moved to Gouverneur.

Dr. Montague is now city health officer in Water-

A native of Henderson, he came to Adams in June, 1942, from St. Lawrence County and took up the practice of Dr. Carl B. Alden, who was called into the service.

Dr. Hisey is a native of Canada, a graduate of the

University of Toronto, class of 1926.

#### Kings County

A stated meeting of the county society was held on December 21, at which time Lt. Col. Thomas T. Mackie, (MC), Executive Officer of Tropical and Military Medicine of the Army Medical School in Washington, D.C., spoke on "Tropical Diseases in the Postwar Practice of Medicine and Surgery." His address was illustrated by lantern slides.

Election of officers was held at this meeting. The

list of officers will appear in a later issue.

The annual meeting of the Associated Physicians of Long Island will be held on Saturday, January 29,

1944, at the Long Island College Hospital The clinical and scientific program will be provided by members of the staff of the Long Island College Hospital. There will be clinics in the morning and a scientific session in the afternoon, at which four short papers will be presented. The annual dinner will be held at 6:30 p.m. at the Brooklyn Club. An interesting after-dinner speaker will be present.

The following lectures will be given, in cooperation with the Brooklyn Institute of Arts and Sciences and the Medical Society of the County of Kings and the the Medical Society of the County of Kings and the Academy of Medicine of Brooklyn, at the Brooklyn Academy of Music, Music Hall, at 8:15 P.M.:
January 14—"Progress of Medicine in War," by Col. C. M. Walson, M.D., 2nd Service Command; January 21—"Germs and Germ Fighters," by Benjamin W. Carey, M.D., assistant director, Lederle Laboratories; January 28—"The Chemist Looks at Medicine," by William M. Malisoft, M.D., New York City; February 4—"Medicine Takes to the Air," by Louis H. Bauer, M.D., Hemostead, Long Island. Hempstead, Long Island.

A membership card will admit two persons. An institute membership card likewise will admit

two.

#### Lewis County

Dr. Walter Neufeld, formerly of New York

City, has opened an office in Copenhagen.

Dr. Neufeld was born in Vienna, Austria, in 1903. He received his medical education in the medical school of the University of Vienna. He was graduated in 1929, and served two years' internship at General Hospital, Vienna. For nine years he had his own office as general practitioner. In 1939 he left Vienna for England, where he remained until May, 1940. He came to the United States in May 1940, and served one year's internship at Goldwater Memorial Hospital, Welfare Island, New York. For the past year he has been executive physician and admitting data. tive physician and admitting doctor.\*

#### Livingston County

Dr. Earle B. Mahoney, assistant professor of surgery at the University of Rochester, addressed members of the Medical Society of the County of Living at the County of the Livingston at their annual meeting held at Big Tree Inn, Geneseo, Monday, December 20. Dr. Mahoney spoke on the topic, "The Treatment of Burns and Experiences at the Cocceput Grove Burns and Experiences at the Cocoanut Grove Disaster."

Dr. Glenn J. Doolittle, of Sonyea, president of the society, presided at the business session, at which new officers were elected. Dinner was served

at 6:15 p.m.

The names of the officers for 1944 will be published in a later issue.

[Continued on page 200]

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q. s. 1000 parts



[Continued from page 198]

#### Monroe County

Dr. Alexander Brunschwig, professor of surgery at the University of Chicago, addressed the December meeting of the Rochester Academy of Medicine, which was held at 8:45 P.M. on December at the Academy.

His subject was "The Surgery of Pancreatic

Tumors."

Dr. G. Kirby Collier discussed "A Balanced Personality" at a young people's meeting in Rochester on December 5. Dr. Collier is president of the Medical Society of the County of Monroe.\*

A Navy medical officer, returned from combat, spoke at the 123rd annual meeting of the Medical Society of the County of Monroe at the Rochester Academy of Medicine on December 21.

Lt. Comdr. Richard A. Cupaiuoli, (MC), USNR, of the U.S. Naval Hospital, Sampson, gave a talk on "Problems of Medical Officers of the Navy in

Amphibious Operations."

Medical personnel of the armed forces on duty

in the area were invited to attend.

Miss Veronica Maher, executive director, Rochester Chapter, American Red Cross, spoke on "Emergency Liaison Between Doctor and Red Cross." Alvah G. Strong, chairman of the Food Panel, of the OPA, addressed the society on "Food Rationing and Its Relationship to the Doctor."

Officers for 1944 were elected and Dr. Benedict J. Duffy, physician-in-chief, St. Mary's Hospital, who was president-elect, was inducted into office.

A dinner at the University Club at 6:30 P.M. pre-

ceded the meeting.

A list of the officers elected at the meeting will appear in a later issue of the Journal.\*

#### Nassau County

Maxim Brettler, M.D. has opened an office in Great Neck for the general practice of medicine.

Dr. Brettler was born in Poland and was educated in Germany and Switzerland. He served his in-ternship at Sydenham Hospital and was resident physician at the Park West Hospital in New York City.

#### New York County

The monthly meeting of the county society was held on December 27 at 8:15 P.M. at the New York

Academy of Medicine.

The program, arranged and prepared under the auspices of the Tuberculosis Committee of the New York Tuberculosis and Health Association, was as follows: "The Private Practitioner's Opportunity and Responsibility in Tuberculosis Case-Finding and Control," by Dr. Robert E. Plunkett, general superintendent of Tuberculosis Hospitals. New York State Department of Health: Hospitals, New York State Department of Health; and "Trends in the Management of Tuberculosis, by Dr. David Cooper, assistant professor of medi-cine, University of Pennsylvania College of Medi-

Discussion of the papers was by Drs. J. Burns Amberson, Jr., visiting physician-in-charge, Tuberculosis Service, Bellevue Hospital, and Herbert R. Edwards, director, Bureau of Tuberculosis, New York City Department of Health.

The American Society of Anesthetists, Inc., announces the election of the following New York physicians as officers for 1944: president, E. A. Rovenstine; secretary, McKinnie L. Phelps; treasurer, Virginia Apgar.

Dr. Howard C. Taylor, Jr., has been appointed chairman of the Department of Obstetrics and Gynecology at the New York University College of Medicine, Dr. Donal Sheehan, acting dean, and

nounced on December 27.

Dr. Taylor has been a member of the faculty of the medical college since 1935. He is associate visiting obstetrician and gynecologist at Bellevue Hospital, attending gynecologist at Roosevelt Hospital, and attending surgeon at Memorial Hospital in New York City. He has written extensively on his specialty and has been directing research on toxemia of pregnancy and kidney func-

A graduate of Sheffield Scientific School, Yale, and the College of Physicians and Surgeons, he is associate editor of the American Journal of Ob-

stetrics and Gynecology.\*

A talk on the prevention and treatment of cancer was given on December 8 to pupils of the James Madison High School in New York City by Dr. Vincent P. Mazzola, under the auspices of the New York City Cancer Committee of the American Society for the Control of Cancer. A question period followed the talk.\*

The county society has indorsed the home nursing course offered women by the American Red Cross.

Dr. J. Stanley Kenney, acting as spokesman for the society, said that the course, offered free and without restrictions as to age, race, or education, represents a valuable contribution to meeting the current medical and nursing shortage.

The shortage, said Dr. Kenney, will continue for some time and may even become worse as wounded service men are brought home. An outbreak of an epidemic disease such as influenza, he pointed out, could be catastrophic unless more women learn

the basic rules of practical home nursing.

Anyone interested in the course may obtain further information from the New York Chapter

American Red Cross, 401 Fifth Avenue.\*

#### Oneida County

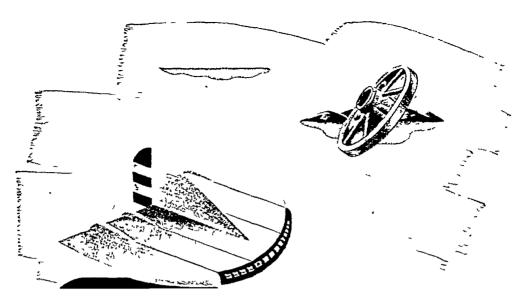
The December dinner meeting of the Utica Academy of Medicine was held at 7:00 r.m. on December 16 in the Hotel Utica.

Dr. Ross D. Helmer, president, reported on the material he has gathered on the proposed Wagner bill now before Congress, which urges socialized medicine. The members discussed the measure.\*

Maj. Mortimer H. Lewis, who has been chief of the eye, ear, nose, and throat division of the Camp Hood Army Station Hospital, Texas, has received his medical discharge and has opened an office here in Utica.

A native of Utica, he was graduated from McGill University. He did postgraduate work in Vienna,

[Continued on page 202]



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[Continued from page 200]

Budapest, and Berlin. For seventeen years he practiced in New York.

The major has been a diplomate in otolaryngology since 1927. He is a member of the New York County Medical Society and the Physicians' Square Club of New York.

#### Onondaga County

The annual dinner meeting of the Onondaga County Medical Society and the Syracuse Academy of Medicine was held at 6:30 P.M. on December 7 at the University Club.

Dr. Louis H. Bauer, speaker of the House of Delegates of the Medical Society of the State of New York and chairman of the Council on Medical Service and Public Relations of the American Medical Association, spoke on "Socialized or Private

Medicine."\*

Dr. Brooks W. McCuen entertained at a dinner on December 2, preceding a lecture at the University of Syracuse College of Medicine by Dr. Clay Ray Murray of New York City. Dr. Murray, who is on the staff of the Presbyterian Hospital in New York and an associate professor at Columbia University, lectured on "Repair of Bone."

The guests were Dr. J. H. Ferguson, Dr. George

Reef, Dr. L. P. Ransom, Dr. Rufus Reed, Dr. Fred Hiss, Dr. Roscoe D. Severance, Charles Ransom, Donald McCuen, Dr. B. A. Stoner, Dr. Har-old Potman, Dean H. G. Weiskotten, Dr. A. G. Swift, Dr. D. S. Childs, Dr. E. W. Kennedy, of Roch-ester, and his son, Robert Kennedy.\*

Dr. Dwight V. Needham and Dr. Carlton F. Potter were elected presidents of the Onondaga County Medical Society and the Syracuse Academy of Medicine, respectively, at the annual joint dinner meeting at the University Club in Syracuse in December.

Dr. Needham succeeds Dr. Herbert C. Yeckel

and Dr. Potter succeeds Dr. J. G. F. Hiss.

Other officers of the county society are Dr. P. K. Menzies, vice-president; Dr. F. N. Marty, secretary, re-elected; Dr. I. L. Ershler, treasurer; Dr. A. N. Curtiss and Dr. Potter, censors; Dr. W. W. Street, delegate to the State Society, and Dr. F. S. Wetherell, alternate; Dr. W. R. Dolan, of Skaneateles, Dr. W. O. Kopel, Dr. J. H. Walsh, Marcellus, and Dr. G. L. Wright, delegate to the Fifth District and Dr. G. L. Wright, delegates to the Fifth District

Other officers of the Syracuse Academy are Dr. G. C. Goewey, vice-president; Dr. M. C. Hatch, secretary; Dr. G. R. Lewis, treasurer, re-elected; Dr. Hiss, Dr. C. D. Post, and Dr. F. R. Webster, council members; Dr. B. W. McCuen, trustee.\*

#### Ontario County

The Canandaigua Medical Society met on December 9 with Dr. D. A. Eiseline, of Shortsville, in the

Canandaigua Hotel.

The members heard a review of Paul de Kruif's book, Kaiser Wakes the Doctors, by Dr. C. Harvey Jewett. The group also discussed the Wagner-Murray bill for extension of the social security plan.

Dinner was served to eleven guests.
Dr. J. Wendell Howard, East Bloomfield, was host for the annual meeting of the society on January 13, when Dr. Margaret T. Ross gave the

president's address and officers were elected. The list of officers will be published in a later issue.

#### Orange County

Two former Port Jervis physicians who have won recognition in New York City were speakers at the 137th annual meeting of the Orange County Medical Society held on December 14.

The two speakers were Dr. Nathan B. Van Etten, a former president of the American Medical Association and a consultant physician at Morrisans Hospital, the Bronx, and the Bronx Eye and Ear Hospital; and Dr. Edward R. Cunnifie, director of surgery at Fordham Hospital, and a trustee of the Medical Society of the State of New York.

Election of officers for 1944 was held and reports of last year's activities and plans for the future

were also features of the program.

The names of the new officers will be published

#### Queens County

At the annual meeting of the county society, held at the Medical Center in Forest Hills on November 30, the following physicians were elected officers for 1944: president, W. Guernsey Frey, Jr., of Forest Hills; president-elect, Edward C. Veprovsky, of Flushing; secretary, Ezra A. Wolfi, of Forest Hills; assistant secretary, Leo Goldberg, of Jamaica; treasurer, Arthur A. Fischl, of Long Island City; assistant treasurer, Lawrence M. Waterhouse, of Jamaica; historian, Joseph S. Thomas, of Flushing, Alberta Libraries, Alberta Alberta Libraries, directing librarian, Alfred Angrist, of Jamaics; assistant directing librarian, Sol Axelrad, of Woodhaven; trustees: Joseph D. Hallinan, of Richmond Hill; Jacob Werne, of Jamaica; Robert R. Yanover, of Flushing; censors: Alfred E. Passera, of Woodside; Arthur G. Whelan, of Jackson Heights; Frank J. Cerniglia, of West Forest Hills; Daniel Porte, of Jamaica; delegates to the State Society: Thomas M. d'Angelo, of Jackson Heights, and Dr. Werner delegates; Godwin A. Distler. Werne, alternate delegates: Goodwin A. Distler, of Woodhaven; Dr. Hallinan, and Dr. Veprovsky.

Dr. Jacob Werne is the retiring president.

Dr. Elizabeth G. Sunners of Sunnyside has 18cently been commissioned an officer in the SPARS with rank of Lieutenant Commander, and will leave shortly for active duty at Long Beach, California, after a two weeks' indoctrination course here. Dr. Sunners, who has been practicing in Queens for many years, is the first woman member of the society to enter any of the branches of the military service.

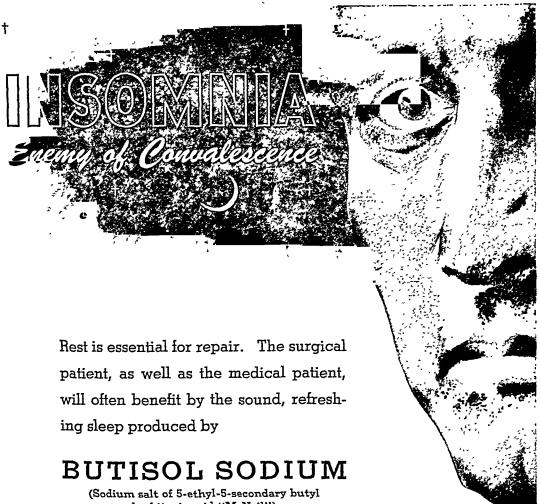
She was graduated from Fordham University with the degree of Ph.D. in 1923 and received her M.D. from the University of Vermont in 1930. She has been a member of the Child Welfare Com-

mittee for the past six years.

For the stated meeting on January 25, 1944, the society will have as its guest speaker Dr. Hugh Young, of Baltimore, professor of urology at Johns Hopkins University and director of Brady Urological Clinic.

Dr. Young is the author of an autobiography which became a national best-seller. He can always be counted upon for an instructive and entertaining discourse. His paper will be on "The

[Continued on page 204]



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Trial supply on request.

P. HT I. L. AND. KILL PRAY THAN

[Continued from page 202]

Medical and Surgical Aspects of Hypertrophy and Cancer of the Prostate," but it is anticipated that Dr. Young will have many interesting things to say on the conduct and social problems of the presentday members of the armed forces of both sexes.

#### Richmond County

Dr. D. V. Catalano, acting president of the Richmond County Medical Society since the death of Dr. H. Lynn Halbert last April, has been elected president of the organization. Dr. Catalano served as vice-president under Dr. Halbert.

Other new officers of the society are Dr. Milton S. Lloyd, of West Brighton, vice-president; Dr. Herman Friedel, of St. George, secretary; and Dr. Curtis J. Becker, of St. George, treasurer.\*

#### Rockland County

The Rockland County Medical Society met on December 15 at the Eureka House, Suffern, and elected officers as follows: president, Dr. Harold S. Heller, of Spring Valley; vice-president, Dr. Edwyn O'Dowd, of Tappan; treasurer, Dr. Marjorie Hopper, of Nyack; secretary, Dr. Robert L. Yeager of Pomona.

Dr. Hopper as trustee succeeds Dr. Dean Milti-more, of Nyack, who has served the society as an officer for twenty-six years but who has voluntarily

retired.\*

Dr. Kurt B. Blatt, of Haverstraw, has been named physician for the Rockland County jail.

Dr. Blatt succeeds Dr. Matthew Dal Lago, of New York City, who resigned.\*

#### Schoharie County

The following news story is clipped from the

Middleburg News of December 9:

The Middleburg Rotary Club honored one of Middleburg's most respected citizens and a member of the local club, Dr. Willard T. Rivenburgh, at its weekly luncheon meeting last Thursday. The occasion marked the eightieth birthday anniversary of Dr. Rivenburgh, who has been a practicing physician in Middleburg for the past fifty-six years and still carries on a very active practice.

James L. Baker, who has known Dr. Rivenburgh since he came to Middleburg in 1887, introduced him as the speaker of the meeting, and paid the physician a glowing and deserved tribute on his long career here. The doctor was the recipient of a birthday cake by the management of Shelmandingly Bertauraby the management of Shelmandingly Bertauraby dine's Restaurant and, in behalf of the club, Dr. Donald Lyon presented him with a basket of flowers.

In his talk to the club, Dr. Rivenburgh related some of his early experiences and numerous humorous incidents. His eightieth anniversary came on Thanksgiving Day, November 25, but inasmuch as no club meeting was held on that day, the event was

put over one week.

Dr. Rivenburgh received his M.D. degree at the University of Buffalo in 1886 and began his practice in the town of Blenheim the same year, residing at the well-known Mel Wright's Hostelry. The followthe well-known Mel Wright's Hostelry. The following year he moved to Middleburg. Three years later, or in 1890, he was married to Miss Belle Stanton, a member of one of the oldest families in this section, and they occupied the house on Clauverwise where they reside at the present time.

With the exception of six months, Dr. Rivenburgh has practiced in Middleburg continuously since

1887. The brief intermission occurred in 19 when he took the civil service examination for position of New York State Medical School spector, and received the highest rating of any cardate. While he enjoyed this new work, he mis his country practice more, so at the end of six mon he resigned his position with the State and cs back here May 15, 1925. Appointed a Schoharie County coroner

Governor Whitman about twenty-eight years a Dr. Rivenburgh has held that office to the pres day, being re-elected each time his term of of ran out. At the November election of this ye he received the largest majority of any candidin Middleburg. Over his long career he has in Middleburg. Over livered over 2,000 babies.

Dr. Rivenburgh is a member of and a Past Mas of Middleburg Lodge No. 663, F. & A. M.; member of the John L. Lewis Chapter, Royal At Masons, Cobleskill; Health Officer of the Villa and Town of Middleburg, and the Towns Fulton, Blenheim, and Gilboa; Physician to t County Alms House; a member and a past-pre dent of the Schoharie County Medical Society a member of the State Medical Society, the Sta School Examiners' Association, and a fellow of ti American Medical Association. He is an activ member of St. Mark's Lutheran Church of Middl burg and holds the office of Elder.

Dr. Rivenburgh was born on a farm in the village of Chatham, Columbia County, and received hearly education in the well-known "little red schohouse," Troy Academy at Troy, New York, an South Berkshire Institute, New Marlboro, Mass chusetts. He served as president of the board ( education of Middleburg, before centralization.

#### Tioga County

The county society held its annual meeting o December 7 at the Green Lantern Inn in Owego Thirty-two members and guests were present.

The guest speaker was Dr. Wallace Hamby

neurosurgeon, of Buffalo. He spoke on "Th Treatment of Low Back Pains."

The annual election of officers was held and re sulted as follows: president, Dr. Hiram L. Knapp of Newark Valley; vice-president, Dr. Harry S Fish, of Sayre, Pennsylvania; secretary-treasurer Dr. Ivan N. Peterson, of Owego; delegates to the meeting of the State Medical Society: Dr. John B Schamel, of Waverly; alternate delegate, Dr. C. S. Johnson, of Spencer; censors, Dr. F. A. Carpente and Dr. F. H. Spencer, of Waverly and Dr. John Laker of Condense. Jakes, of Candor.

#### Tompkins County

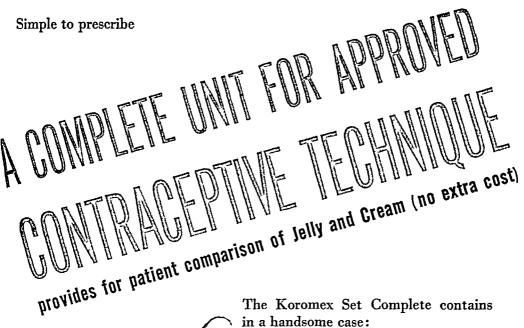
At the annual meeting of the Tompkins County Medical Society held on December 21, 1943, the following officers were elected: president, Dr. Joseph N. Frost; vice-president, Dr. Robert H. Broad; secretary, Dr. Willets Wilson; delegate to the State Society (for two years), Dr. Leo P. Larkin; alternate delegate, Dr. Henry B. Sutton; censors: Dr. Frederick Beck, Dr. Leo P. Larkin, Dr. Hudson J. Wilson, Dr. Charles D. Darling, and Dr. Leo H. Speno. and Dr. Leo H. Speno.

All of the officers are residents of Ithaca.

#### Ulster County

Dr. James J. Britt has opened an office in Kingston to engage in the practice of obstetrics and general medicine.

[Continued on page 206]



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Write for literature

#### [Continued from page 204]

Dr. Britt is a native of West Hurley, a graduate of Holy Cross College and of Albany Medical

For three years following an internship at Highland Hospital, Rochester, New York, Dr. Britt practiced medicine at Napanoch.

On October 1, 1943, he completed two years' postgraduate work in obstetrics at the A. N. Brady Maternity Home in Albany.

#### Wayne County

The annual meeting of the Wayne County Medical Society was held at the Hotel Wayne in Lyons on December 7. Dinner was served at 6:30 o'clock, after which officers were elected and the yearly reports were given.

Dr. Paul A. Lembeke, of Rochester, district state health officer, gave a talk on "Tropical Diseases." Dr. Lembcke was in Central America during the past summer. The names of the new officers will be published in a later issue.\*

#### Westchester County

Dr. Camillo A. Cerchiara has been appointed chief of the Emergency Medical Service of Mount Vernon's Civilian Protection Organization, to fill the vacancy created by the death of Dr. William T.

Dr. Cerchiara, who has been a member of the Emergency Medical Service since its inception two years ago, has practiced medicine in Mount Vernon for a score of years. He received his B.S. degree in 1918 at City College in New York, and his M.D. degree in 1922 at Cornell University Medical School. He interned in Mount Vernon Hospital from 1922 to January 1, 1924.

Dr. Cerchiara took postgraduate work in ob-

stetrics in 1928 at Lying-In Hospital, New York City, and has been on the medical staff of Mount Vernon Hospital for many years as assistant ob-

A member and former president of the Mount Vernon Medical Society, Dr. Cerchiara also is a member of the Westchester County Medical Society and the American Medical Association.\*

Dr. John A. P. Millet, of New York, chairman of the Emergency Committees of the Neuro-Psychiat-ric Societies of New York City, and director of the Lake George Foundation, spoke on "The Role of Civilian Agencies in the Rehabilitation of Neuro-Psychiatric Casualties" before the Scarsdale Woman's Club on December 15. Dr. Michael M. David, of White Plains, chairman of the Committee on Research and Medical Economics, spoke on "Our Role After Victory in Health and Medicine."\*

#### Wyoming County

One of Wyoming County's oldest practicing physicians rounded out fifty years as a "country doctor" on December 11. He is Dr. Lon E. Stage, 78, of Bliss. Friends throughout the county honored him at a testimonial.

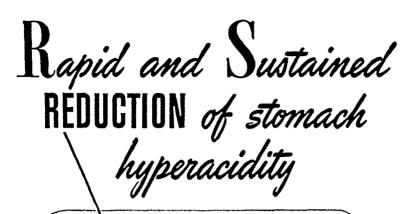
All of Dr. Stage's medical career has been passed in the Wyoming County hamlet of Bliss He went there directly after graduation from the University of Buffalo Medical School in 1893 He was a member of the first class to be graduated from that institution.

Dr. Stage has been away from his ministering but once in his life. "I caught smallpox from a patient, and was really sick," he explains.

Dr. Stage is a native of Elmira.\*

#### Deaths of New York State Physicians

Name	Age	Medical School	Date of Death December 18	Residence Manhattan
Harold E. Bogart	47	Cornell	December 18 December 20	Flushing
Lawrence Breitbart	40	George Washington	December 9	Buffalo
Leo A. Bussman	58	Buffalo	December 10	Lyons
Emory W. Carr	70	Maryland	December 14	Manhattan
Samuel H. Geist	58	P. & S., N.Y.	December 17	Forestville
Harry F. Hutchinson	70	Buffalo	November 27	Buffalo
Ernest A. Kaeselau	44	Buffalo L.I.C. Hosp.	December 19	Brooklyn
Henry J. Kohlmann	61 75	Buffalo	December 6	Holley
Charles E. Padelford	75 52	L.I.C. Hosp.	December 16	Manhattan
Louis Preschel	78	P. & S., N.Y.	December 10	Brooklyn
Herman C. Riggs	73	P. & S., N.Y.	December 10	Manhattan
William Salant	73 37	N.Y. Hom.	November 12	Brooklyn
Joseph L. Smith	69	Ohio State	December 15	Ithaca
Richard C. Warren	41	W.M.C. Pa.	December 9	Kingston Manhattan
Nettie Weintraub Sara Welt	83	Zurich	December 26	TATRITIBUTE
Sara Well	~-			



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#### Hospital News

#### OCD and Hospital Association to Recruit Men for Volunteer Hospital Service

O ASSIST in relieving the nation-wide shortage of manpower in hospitals, the U.S. Office of Civilian Defense and the American Hospital Association are jointly sponsoring a plan to recruit men volunteers to perform many of the less skilled tasks. In a joint statement the two agencies point out that business men, laborers, and white-collar workers are already assisting in the care of patients and property, as well as in maintenance work and operation, in hospitals in several communities.

Local defense councils stand ready to assist hospital administrators in publicizing the needs of their hospitals and in recruiting volunteers. The statement, which is addressed to hospitals, announces that the Civilian Defense Volunteer Offices will canvass the sources of supply, appeal to the public through press and radio, and provide speakers to recruit volunteers through men's organiza-

tions.

Health and medical committees of the War Services Board of the local defense council, on which hospitals are represented, may ascertain the extent

of the manpower problem.

It is recommended that hospitals determine what tasks men volunteers can take over, determine how to arrange schedules so that the men can be used, and make arrangements within the hospital for selection, training, organization, and supervision. There should be a director of volunteers, who would be responsible for selecting and scheduling the volunteers. In addition to specific training, special attention should be given to orientation in the traditions, ethics, policies, procedures, and physical layout of the hospital, the statement advises.

A special announcement recently sent to defense councils pointed out that each hospital will wish to work out the details of training to conform to its own organization and procedures.

To stimulate morale and efficiency, it is suggested that the "Hospital Men Volunteers" be designated a special unit of the U.S. Citizens' Service Corps. A standard uniform of a gray coat of three-quarter length, with the insigne of the Citizens Service Corps on the sleeve, is recommended for adoption.

The program to extend volunteer services for men has been worked out by the Medical Division and the War Services Branch of the Office Civilian Defense. OCD has been guided by a committee of the American Hospital Association appointed to advise the War Services Branch on the program. Members of the committee are: Mr. Oliver G. Pratt, superintendent, Salem Hospital, Salem, Massachusetts, chairman; Mr. Ralf Couch, administrator, University sity of Oregon Medical School Hospitals and Clinics, Portland, Oregon; Dr. Robin C. Buerki, dean, Graduate School of Medicine, University of Pennsylvania, and medical director, Hospital of the University versity of Pennsylvania, Philadelphia; Mr. Frederick D. Grave, New Haven, Connecticut, director of men volunteers, New Haven Hospitals, New Haven Conn.; Dr. Jack Masur, Hospital Officer, Medical Division, Office of Civilian Defense, Washington, D.C.; Miss Marian Randall, Chief Nurse, Medical Division, Office of Civilian Defense, Washington, D.C.; Mr. Frank Walter, Denver, Colorado, president, American Hospital Association, ex officio; Dr. George Baehr, Chief Medical Officer, Office of Civilian Defense, Washington, D.C.

#### New Hospital for Peru's Upper Amazon Development

PUCALLPA, terminus of a motor highway across the Andes Mountains into Peru's upper Amazon country, is the site of a new hospital built to aid in the development of the area for production of rubber, quinine, and other economic resources.

The Pucallpa hospital is one of several hospitals, health centers, and dispensaries being established in Peru's trans-Andean territory with the aid of United States doctors and sanitary engineers. These are providing modern health services in the region for the first time in connection with colonization and development plans.

The great trans-Andean highway, opening the way for motor transport across the Andes to link with the Amazon navigation system to form a transcontinental route, recently has been extended

as far as Pucallpa.

A few years ago Pucallpa was a small settlement on the Ucayali River, undistinguished from other jungle settlements in the upper Amazon valley.

Now Pucallpa is the meeting place of the two systems of transportation which make the first transcontinental land-water route across the Amazon

basin from the Pacific to the Atlantic.

The interconnecting waterways of Peru's Amazon valley lead from Pucallpa to Iquitos, Peru's port for ocean-going steamers 2,000 miles up the Amazon river from the Atlantic. The new Central Highway of Peru runs from the port of Callao, on the Pacific

Coast, across Andean ranges and dips into the Amazon valley to Pucallpa.

Opening of a 258-mile stretch of this highway to Pucallpa coincided with the completion of the hospital. Both projects were dedicated on the same day recently by President Prado of Peru, who motored from Lima.

Peru always has envisioned the Central Highway as a key to unlock her Amazonian riches. In this development Pucallpa was to play a large role be-because of its strategic location. These were peace-

time plans.

Now these plans have been adjusted to a wartime The Amazon Valley, including the Perupattern. vian section, is the scene of a rubber development program. One of the biggest problems is transportation of food, drugs, equipment, and other supplies into the rubber country.

Before the extension of the highway, supplies moved into the region of the Ucayali River, as well as other parts of the Peruvian rubber country, mainly from Iquitos. It is a week's trip or more by

rivers to Iquitos.

As terminal of the highway, Pucallpa becomes a natural supply base for the Ucayali River region. It also is a port for collection of rubber for relay overland to the Pacific coast.

Altogether five hospitals and fifteen dispensaries [Continued on page 210]



The potentiation of the central action of phenobarbital by the belladonna alkaloids (Friedberg, Arch. f. exp. P. & P. CLX. 276) renders possible attainment of desired effects with relatively small doses, thus avoiding hang over" and other unpleasant side actions. In contrast to galenical hang over" and other unpleasant side actions. In contrast to galenical preparations of belladonna such as the tincture, Belbarb has always the same proportion of the alkaloids.

Indications: Neuroses, migraine, functional digestive and circulatory disturbances, vomiting of pregnancy, menopausal disturbances, hypertension, etc.

Formula: Each tablet contains 1/4 grain phenobarbital and the three chief phenobarbital and the three chalkaloids, equivalent approximately 9 minims of tincture of belladonna.

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#### SHOES AS THERAPEUTIC AGENTS

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[Continued from page 208]

are to be built at convenient points. Pucallpa has the first completed hospital. It is fitted with 32 beds, a laboratory, and water supply and power

A hospital nearing completion at Iquitos-headquarters of Peru's rubber production program—will house 80 patients and will be equipped with laboratory and x-ray apparatus .- Release from the Office of the Coordinator of Inter-American Affairs.

#### Walsh Outlines Veterans' Need for More Hospitals

PRESENT and future of Veterans Facilities and I the need for many more hospitals for the hospitalization of service men of the first and second World Wars and the Spanish-American War, each veteran of which is entitled to it, were outlined to the Saratoga Historical Society by Dr. John S. Walsh, physician-in-charge of the Veterans Facility at the Spa, at a meeting held in November, at which Former Supreme Court Justice Irving I. Goldsmith, a vice-president of the institution, was host at his home.

Some ten millions, Dr. Walsh said, are entitled to hospitalization, and he drew a picture of need to be prepared for vocational rehabilitation of the veterans who are being discharged at the present

rate of 35,000 a month.

The problem of re-employment for the returning veterans now trickling back and soon to come in a rush deserves the careful consideration of everyone, Dr. Walsh felt. At present, there are some 85,000 beds in ninety government hospitals and it is not nearly enough, the physician said.

Every veteran whose disabilities are service-connected, he stressed, is entitled to vocational training to fit him for some employment, and his case will be carefully considered by a Board of Vocational training which will guide him into some vocation at which it will be possible for him to work.

In the last war, Dr. Walsh said, some 128,000 veterans took advantage of this vocational education opportunity, and he felt that this plan for veterans of the present war would take care of the em-

ployment of a certain large percentage of the returning veterans.

Growing importance of hydrotherapy treatment for veterans was forecast by Dr. Walsh.

#### 300,000 Beds Needed for Veterans of Second World War

SOME 300,000 beds will be needed to enable veterans of this war to receive hospital and domiciliary care to the extent provided veterans of other wars, according to a statement released to *The Modern Hospital* on November 14, 1943, by Brig. Gen. Frank T. Hines, administrator of Veterans' Affairs.

This estimated maximum, however, should not be required until long after the war. It will necessitate the eventual additional construction of not more than 100,000 beds, because, as General Hines pointed out, under present plans there will be 100,000 beds in Veterans Administration facilities, and it should be possible to obtain at least that many more beds from the Army and Navy shortly after the war terminates when these agencies have completed their medical and surgical treatment of the wounded.

Some 15,000,000 veterans will have the right after

the war to be hospitalized by the Veterans Administration when beds are available, declared General Hines.

At the present time, the Veterans Administration has 66,305 hospital beds in its ninety-three facilities and is utilizing 2,859 beds in other government and contract hospitals. This number will be increased to approximately 87,000 under presently approved or contemplated construction programs. In addition, the Veterans Administration had space for 17,464 beds for domiciliary care, of which 9,466 were oc-

cupied on November 4.

From December 7, 1941, to September 30, 1943, a total of 26,000 veterans of the present war had been hospitalized by the Veterans Administration. that number 7,800 remained under care on September 30, with more than 17,000 having been discharged as recovered, improved, or arrested.—Eva Adams Cross, in the Modern Hospital.

#### Improvements

new emergency and ward admissions department was opened for inspection by St. Luke's Hospital, New York City, late in October. The new unit, which occupies the ground floor of the Norrie Building, is designed to provide modern, centralized facilities for the admission of ward pa-tients and the care of emergency cases. Funds for the modernization project were provided by gifts and legacies and, because of its importance to civilian safety and protection, the War Production Board granted the hospital's application for priorities on building materials.

An 86-bed increase in Syracuse hospital facilities may be expected as a result of grants approved by Regional Director John M. Gallagher of the Federal Works Agency.

Plans for a two-story and basement addition to Lyman wing of the New Syracuse General Hospital will provide dormitory and classroom facilities for student nurses, and will release the fourth floor for an additional 30 hospital beds. The building will cost an estimated \$174,000, of which \$149,000 is provided by the FWA grant.

Plans for a 56-bed addition to Syracuse Memorial Hospital have also been approved by the FWA.\*

Miss Rose Q. Strait, administrator of the Saratoga Hospital, has announced that Annex 1, closed since late in the summer because of shortage of nursing personnel, necessitating consolidation, had been reopened early in December, thus adding 12 beds to the capacity of the hospital.\*

St. Joseph's Maternity Hospital in Troy has a new delivery and obstetric table, bought with the hospital's allotment of the Allied Communities War Chest fund.

\* Asterisk indicates that item is from a local newspaper.

[Continued on page 212]



The potentiation of the central action of phenobarbital by the belladonna alkaloids (Friedberg, Arch. f. exp. P. & P. CLX, 276) renders possible attainment of desired effects with relatively small doses, thus avoiding hang over" and other unpleasant side-actions. In contrast to galenical preparations of belladonnal, such as the tincture, Belbarb has always the same proportion of the alkaloids.

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#### SHOES AS THERAPEUTIC AGENTS

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[Continued from page 210]

#### At the Helm

H. Chester Larrabee, superintendent of maintenance at City Hospital in Binghamton for nearly fifteen years, has been appointed executive secretary of the Board of Managers of the Broome County Tuberculosis Hospital.

The appointment was made by Dr. A. J. Roach, superintendent, and became effective December 16. Rana S. Cooper, president of the board, announced the designation after a meeting of the

managers with Dr. Roach and Country Attorney Charles P. O'Brien.

Dr. Roach will continue to direct all medical activities at the hospital but Mr. Cooper said that Mr. Larrabee-who resigned from the Hospital Board of Managers in a letter yesterday to the Broome County Board of Supervisors—"will supervise all activities except the medical treatment of patients."\*

John S. Parke has been elected vice-president of the Columbia-Presbyterian Medical Center in New York City. He will succeed John F. Bush, who was named assistant to the president of the board of managers of the institution. Mr. Parke has par-

ticipated in the construction work of every building of the hospital center.\*

Dr. Lyman I. Thayer, superintendent of Westmount Sanatorium, Warren County, has been named by Governor Thomas E. Dewey as a member of the Board of Visitors of the State Hospital for the Treatment of Incipient Pulmonary Tuberculosis at Ray Brook.

He fills the unexpired term of Dr. Thomas H. Cunningham, formerly of Glens Falls, who resigned recently. Dr. Thayer's term will run until

1949.

Prior to 1929, when Dr. Thayer became superintendent of Westmount, he was a member of the staff of the tuberculosis division of the State Department of Health, which position he held eight years. He was born at Newark, N.J., July 28, 1893, and was graduated from the Tennessee Military Institute, Colby College, and the College of Physicians and Surgeons of Columbia University. His internship was served in Albany Hospital.

Dr. Thayer is a member of the Warren Country Medical Society, the State Medical Society, a fellow of the American Medical Association, a member of the Trudeau Society, and a Fellow of the American

College of Chest Physicians.\*

#### Newsy Notes

Fifty-two-year-old Sydenham Hospital, a voluntary institution in New York City's Harlem, will become the first interracial hospital in the city, with a staff of Negro and white physicians and with a white and Negro board of trustees, it has been announced by Joseph Martinson, president.

The interracial board of trustees has already been created by the addition of six Negro members, and the selection of Negro physicians and technicians

will soon follow.

One of the first actions expected to be taken by the expanded board will be to admit Negroes as private patients. Heretofore about 9 per cent of the free patients have been Negro, as well as a substantial proportion of the semiprivate ones. Private patients have all been whites. The hospital has had Negro nurses on its staff for more than six months.
"This hospital is being so organized," Mr. Martin-

son said, "to provide qualified Negro physicians, through staff positions, with opportunities to hospitalize and care for their own patients and to im-

prove their own medical competency.

The hospital is an eleven-story fireproof structure with facilities for clinical and research services. It has 181 beds and 30 bassinets. It is approved by

the American College of Surgeons.

The institution is a full voluntary hospital participating with eighty-six other voluntary institu-tions in the Greater New York Fund, United Hospital fund, and support by the city, and has tax-

exemption privileges.

The interracial plan is the third major innovation pioneered by Sydenham Hospital. Its present building was the first to introduce wiring for telephone and radio connections in every room. 1934, according to a newspaper account at that time, it made a "radical departure from the usual American hospital practice" by offering three weeks' care, valued at \$100, for a premium of \$10 a year, thus bringing hospital insurance to white-collar workers earning less than \$5,000 annually.

The former board of Sydenham will continue to serve. It includes Mr. Martinson; Michael J. Merkin, first vice-president; Edwin C. Boas, second vice-president; Benjamin H. Roth, secretary and treasurer; Sidney Cross, Leon Jarcho, Harold Price, Saul E. Lorberbaum, Leo Cohen, Ralph Engel, and Mrs. Leon Schinasi.

Twelve new members elected to the board are A. A. Astin, William T. Baldwin, Alan L. Dingle, Stephen P. Duggan, Jr., Rev. James H. Robinson, Ferdinand C. Smith, George W. Harris, Mrs. Harriet Shad Butcher, Harry C. Oppenheimer, Mrs. William S. Paley, Frank M. Totten, and Dr. William H. Kilpatrick.—New York Herald Tribune.

November 28 marked the twenty-fifth anniversary of the St. Francis Hospital School of Nursing

in Poughkeepsie.

The school has a student body of fifty young women, forty-eight of whom are members of the United States Nurse Cadet corps, and in February, to assist in training of nurses now so badly needed, the school will take a second entering class, which never before has been done.\*

The White Plains Hospital was one of the principal legatees in the will of the late Clarion B. Winslow.

At 7 P.M. on November 17, 1943, at the Roger Smith Hotel a dinner, celebrating the golden anni-versary of the White Plains Hospital, was held. About 175 attended. Dr. James F. D'Wolf was chairman.

Guests included Dr. and Mrs. Alan Gregg, of Scarsdale, Dr. and Mrs. Guthe, the Rev. William C. Baxter, president of the White Plains Ministers' Asso-

[Continued on page 214]

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Literature and samples on request.

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Worcester Massachusetts [Continued from page 212]

ciation, Miss Grace Roberts, first graduate of the School of Nursing, Mrs. Alan Chalmers, of Scarsdale, chairman of the Nursing School committee, and Miss Winifred Smith, school director.

Alexander C. Nagle, of Scarsdale, board president, presided. Dr. Gregg, medical education director of the Rockefeller Foundation, spoke on "Medicine 50 Years Hence." The High School A Cappella Choir sang.

An open house was held at the hospital on

November 21 from 3:00 P.M. to 6:00 P.M.

Dr. Thorstein Guthe, Deputy Surgeon-General of the Royal Norwegian Government-in-Exile, spoke at 1:30 P.M. on November 17 over Radio Station WFAS on "Norway at War." He mentioned care of Norwegian seamen at White Plains Hospital.

At the annual meeting of the Dansville General Hospital Corporation the following directors were elected for periods of three years: Dr. Harold Hulbert, Dr. Simon King, Frank McTarnaghan, Thomas M. Bowes, Fred F. Biek, Gamble Wilson, Miss Helen Pratt, Mrs. Elizabeth Scherer, and Mrs. Floyd Shepard.\*

Patients at the Batavia Hospital will be provided with books to read through the cooperation of the Twigs, a group of high school girls who are actively connected with the hospital. A book shelf is being planned which will be wheeled around the rooms two or three times a week, so that patients may select books.\*

The establishment of an award for house officers of the Rochester General Hospital, Rochester, to be known as the Harry D. Clough Memorial Prize, was announced on October 22, 1943. The award,

which will consist of a \$25 cash prize, will be granted at the close of each weekly conference session to the house officer who has contributed most to the success of the conferences in the quality of case presentations, discussion, and assistance in the selection of clinical material. The name of the winner will be placed on a special plaque which has been hung on the north wall of the conference room. The judging committee will be formed from staff members. The creation of the prize will be a fitting memorial to Dr. Clough, assistant medical director of the hospital, who died October 1, 1942, and who worked for the development and improvement of the hospital conferences.

Dr. John L. Norris, of Rochester, addressed the Practical Nurses of New York, Inc., Western Division, at their monthly meeting on December 7 at 8 p.M. in the Nurses' Home of the Monroe County Hospital. His subject was "The New Medicines, and What the Doctor Expects the Practical Nurses to Know About Them."\*

The sum of \$180,000 to prepare plans and specifications for a new general hospital for Queens County after the war was approved by the Board of Estimate on December 2, at which time it was disclosed that a site in Elmhurst is to be selected for it.\*

Two ambulances were presented to the Army on December 5 by the Federation of Slovak Societies of Greater New York at a ceremony in St. John Nepomucene's Roman Catholic Church.

Nepomucene's Roman Catholic Church.
The speakers hailed the patriotism of the Slovak-

Americans.

Representative Martin J. Kennedy and State Senator James Donovan were among the speakers. Lieut. Dorothy Bennett, a WAC, accepted the ambulances in the name of Maj. Gen. Thomas A. Terry of the Second Service Command.\*



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- 1. C. H. Smith, Bull. N. Y Acad. Med., Aug. \*40.
- 2. Parsons and Hawksley, Arch. Dis. Child., Vol. 8, No. 44.
- 3. Gyorgy, Robscheit-Robbins, Whipple, Am. Jo. Phys.; Apr. '38.

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#### Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

#### REVIEWED

Air-Borne Infection. Some Observations on Its Decline. By Dwight O'Hara, M.D. Octavo of 114 pages, illustrated. New York, Commonwealth fund, 1943. Cloth, \$1.50.

Dr. O'Hara has brought together, within a small volume, a group of brief essays upon some of those diseases which gain entrance into the body by way of the respiratory tract. As professor of preventive medicine at Tufts College Medical School and as a well-known Boston clinician, he has analyzed the past and present importance of these infections. He offers a prediction that they will ultimately be brought under control, just as the enteric infections have already been relegated to a place of minor significance.

In view of the well-established evidence of airborne transmission of infection presented by Wells, Trillat, Cruikshank, Allison, and others, medicine may anticipate more effective specific means for the prevention of these diseases, and yet Dr. O'Hara wisely emphasizes that other factors are already operative toward accomplishment of this goal.

THOMAS D. DUBLIN

Flying Men and Medicine: The Effects of Flying upon the Human Body. By E. Osmun Barr, M.D. Octavo of 254 pages. New York, Funk & Wagnalls Co., 1943. Cloth, \$2.50.

Dr. Barr was an officer in the Air Corps of the United States Army in the first World War, and received his medical degree in 1924. He is following aviation now as a flying doctor. He knows his aviation.

His book is designed to familiarize flyers with the anatomic and physiologic reasons for strict and repeated examinations to insure adequate physical fitness. Inasmuch as the text is addressed to laymen, the doctor speaks in plain language, with explanations of scientific terms when necessary. The lay reader can read the book with interest and profit, and the discussions will be instructive to those doctors concerned in this specialized branch of medicine.

Joseph Raphael

The Principles and Practice of Industrial Medicine. Edited by Fred J. Wampler, M.D. Octavo of 579 pages, illustrated. Baltimore, Williams & Wilkins Co., 1943. Cloth, \$6.00.

The problems of industrial medicine today confront the general practitioner as well as the specialist. Many practitioners must assist the small number of physicians in industrial medicine in conserving the

health of the war workers.

Thirty-three experts in their respective fields have contributed to make this volume one of the most interesting and practical books on the subject to have appeared within recent years. The contribu-tors include medical directors of large industrial plants, physicians in public health service, research workers in physiology, sanitary engineers, and teachers of preventive and industrial medicine. The work is up to date and there is firsthand information on every subject.

There are chapters on industrial accidents, the effects of temperature and humidity, abnormal atmospheric pressures, control of exposure to toxic chemicals, poisoning by metals and gases, effects of electricity, occupational diseases of the skin, eye injuries; there are chapters on industrial medical services for smaller plants, and other chapters on industrial health with which the general practitioner as well as the specialist should be familiar. Although a discussion of surgery is omitted, the treatise is comprehensive and includes chapters on traumatic shock, burns, and vocational and industrial rehabilitation. This textbook should prove useful for undergraduate students and graduates in medicine interested in the many phases of industrial health and industrial medicine.

The editor and individual contributors are to be

congratulated upon this excellent work.

IRVING GRAY

Hospital Discharge Study. By Neva R. Deardorff and Marta Fraenkel, M.D. Vol. 2, Hospitalized Illness in New York City. Octavo of 349 pages, illustrated. New York, Welfare Council of New York City, 1943.

This is a report on hospitalized illness in New York City, and is the second of the three volume publication, Hospital Discharge Study, a project of the Welfare Council of New York City.

This particular volume is arranged according to diagnoses of over one-half million patients dis-charged from 113 hospitals in New York City in 1933. It includes analyses of data on patients with tumors, obstetric conditions, surgical and traumatic conditions, acute communicable diseases, tuberculosis, venereal diseases, diabetes, arthritis, and several other diseases.

The study is obviously of special interest to administrators and medical staffs of hospitals. it should be valuable also to those physicians who know how to use such data as the basis for a more intelligent approach to the medical problems of the

communities in which they practice.

ALFRED E. SHIPLEY

Synopsis of Tropical Medicine. By Sir Philip Manson-Bahr, M.D. Duodecimo of 224 pages, illustrated. Baltimore, Williams & Wilkins Co. 1943. Cloth, \$2.50.

This small book dealing with tropical medicine is thorough, though in synopsis form. It deals with the cause, clinical course, and treatment of tropical

diseases. It is a practical work, well worth while for a quick review. It includes many conditions of general interest other than just tropical afflictions; for instance, animal poisons such as snake bite and spider bite, as well as disturbances due to climatic conditions, heat exhaustion, sun traumatism, etc. recommend it highly for its value, particularly at this time.

EUGENE R. MARZULLO

[Continued on page 219]



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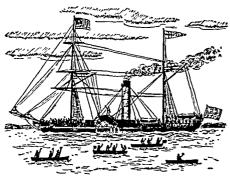
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[Continued from page 216]

Geriatric Medicine. Diagnosis and Management of Disease in the Aging and in the Aged. Edited by Edward J. Stieglitz, M.D. Octavo of 887 pages, illustrated. Philadelphia, W. B. Saunders Co., 1943. Cloth, \$10.

This volume is the work of many well-known writers, each covering his particular field. Geniatrics is stated by the editor to be not a specialty but rather an attitude of mind which takes notice of the changes which result from aging.
Its objective is "to add breadth and depth rather

than mere length to life."

Many of the articles are quite comprehensive and present an excellent description of the diseases of old age, which makes this one of the best volumes on the subjects treated.

W. E. McCollon

What to Do Till the Doctor Comes. By Donald B. Armstrong, M.D. Sextodecimo of 354 pages, illustrated. New York, Simon & Schuster, Inc., 1943. Cloth, \$1.00.

What to Do Till the Doctor Comes supplies an amazing quantity of valuable information for the layman. As stated by the authors, it is "designed to be the partner of the family medicine chest" and it could well serve as an excellent guide for what goes into such a chest. Prepared by a distinguished medical authority on health and safety and published in a convenient, readable, quick reference form, this small volume fills an urgent need. A physician who recommends this booklet to his patients will reap dividends both in his own valuable time and in their welfare and comfort.

THOMAS D. DUBLIN

The Microscope and Its Use. By Frank J. Muñoz in collaboration with Dr. Harry A. Charipper. Octavo of 334 pages, illustrated. Brooklyn Chemical Publishing Co., Inc., 1943. Cloth, \$2.50.

This book is a highly practical treatise on the microscope, written in nontechnical language with a minimum of mathematics and "optics." The text a minimum of mathematics and "optics." The text is full of helpful hints and many "don'ts" to guard the reader against common mistakes. The numerous fine illustrations and diagrams, the excellent index, bibliography, and glossary add greatly to the value of the book.

Especially noteworthy are the chapters on the condenser, that so often misunderstood part of the microscope, on microscope illumination, and on the binocular microscope. Other chapters are devoted to stereoscopic, metallurgic, and polarizing microscopes, and to the microtome.

ARNOLD H. EGGERTH

Pictorial Handbook of Fracture Treatment. By Edward L. Compere, M.D., and Sam W. Banks, M.D. Octavo of 351 pages, illustrated. Chicago, Year Book Publishers, Inc., 1943. Cloth, S4.25.

Compere and Banks have graphically simplified the application of the principles and treatment of fractures in their Pictorial Handbook of Fracture Treatment. They have chosen to illustrate only the more readily acceptable methods of treatment. The lew selected x-rays and the excellent drawings will make this an extremely valuable reference book for the student and surgeon who now must manifest an interest in these injuries. In no recent book has so much been so briefly yet so adequately covered. The various fractures are presented in such a simple and yet complete form as to make the work of inestimable value.

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#### MEDICINE IN THE NEWS

James B. Reston, in the New York Times, mentioning Winston Churchill's illness, stated, "The weakness of greatness is that it is irreplaceable."

Which gives birth to a thought that perhaps in the not-to-distant future, some doctors may well argue that it was the medical profession that actually shortened this war by restoring Churchill back to health quickly.

The bubble that penicillin can be grown at home at an initial outlay of less than five dollars and a production cost of 5 cents a dishful, has been burst by the report of a producer of this new drug who has invested \$1,500,000 in the manufacture of it. According to the facts, it is extremely difficult to prevent infection of the mold by foreign organisms during fermentation. Even slight infection will completely destroy the penicillin and possibly result in the formation of toxic products. Besides that little problem, the extraction of penicillin from the fermentation liquor free of harmful impurities is most exacting. So it is no homemade remedy.

#### LIFE IN THE HIGHER PLANES

The effect of high altitudes on the human body is a study that the war has made necessary. At Northwestern's Medical school the x-ray is being used for such studies. Films have been taken of

men theoretically flying at altitudes of seven miles.

These films showed marked and significant changes in the heart, lungs, joints and muscles of volunteer pilots. It has long been known that at 38,000 feet, many pilots experience pain caused by strenging of mace within different parts of the expansion of gases within different parts of the body. The gases in certain body fluids have normal channels for expansion. However, particles of dissolved gases which lodge in fat tissue and the joints will expand when outside pressure decreases. The pain caused by this expansion, according to some of the test cases, is more severe than in rheumatism.

Occasionally gas in a flier's stomach at 38,000 feet will expand about six times. Bubbles and airpockets on the films appeared large in many cases. One picture taken at the theoretical 38,000 feet revealed a large air-pocket beneath a knee joint. It was not there before or after the test.

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#### THE LINE IN TRAVEL

Where to draw a line between essential and nonessential travel is still a matter to be left up to the judgment of the individual and to his or her own patriotic honor.

The vacation resorts, in spite of a campaign to make the public less travel-minded during this war, have never enjoyed such a tremendous business. During the past year hotel rooms have been as scarce as steaks, and have required almost as much "know-who" as "know-how" to obtain. The railroads, with all their implorings to stay at home unless it was a matter of life or death, are still confronted with a problem of transporting twice the number of passengers with less unassigned rolling stock available and less train crews to man the cars.

The travel business, meaning all the men and women who must continue to earn a living through reservations and bookings, are practically out on a limb trying to maintain some form of neutrality—torn between a "must" to discourage unnecessary travel and a "must" to serve clients who insist on going places to get away from it all.

In the vastly reduced travel and resort advertising, the trend is toward "health" vacationing. Even though an evident subterfuge, it seems the only recommendation left the hotels and resorts for enticing clients or logical reason for advertising and keeping their names in the minds of the public.

But travel, people still must or will regardless of hardships or inconveniences. Florida is again host to thousands who wish to escape the rigors of a northern winter, while the northern resorts are being stormed by the red-blooded who prefer the snow and ice for healthy recreation.

Locally and within decent travelling distance, the Berkshires, the Timber Trail section and Lake Placid in the Adirondacks, Salisbury in Connecticut, and the Poconos all provide excellent winter sports. On the list of even closer resorts are Phoenicia with new ski trails, and North Creek.

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#### RETROSPECTION

Along with some hardships (at least hardships for Americans) the war years have brought the highest rate of production and earnings in history.

The solution to unemployment was finally brought about by the demand for manpower in our fighting forces. Millions of jobs have been created and filled by women who had been on no payrolls. The expenditure of over \$150,000,000,000 on war materials alone trebled the manufacturing payroll and doubled the national income. The result—many Americans, especially in the lower income brackets have the greatest purchasing power they have ever had.

A comparison with peacetimes shows that 27 million (or 71%) more employees are now at work than in 1933, the permanently unemployed list of 12,750,000 in that year has been completely wiped out, and it is estimated that our 65,000,000 employed in 1943 have helped to build up a national income of 155 billion dollars.

The national income is almost twice that of 1929

(our last peacetime boom year), almost four times that of 1933 (the low ebb of depression), and almost three times that of 1939.

But looking ahead, we face the problem of returning some 11,000,000 soldiers and sailors to job when peace comes and the problem of what to do with the 20,000,000 persons now in war work. Eliminating the number of women who will return to housework and the number of men who may be retained in the armed services, economists still see a need for at least 10,000,000 to 15,000,000 new jobs to support the buying power upon which post-war prosperity will naturally depend. Higher prosperity levels, to offset possibly rising taxes, would require even more jobs or an incentive for production as strong as the current war work.

To partly offset the strain of such a vast reconversion, plans now are aimed at tapering off war contracts as production goals are met and to gradually switch industry back to peace production.

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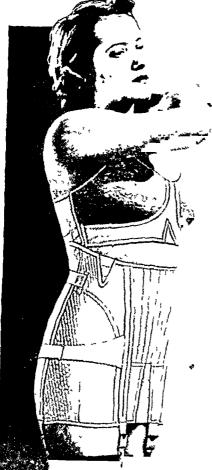
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288

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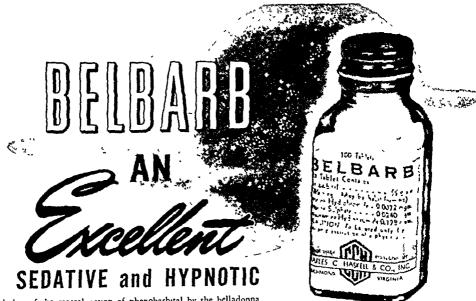
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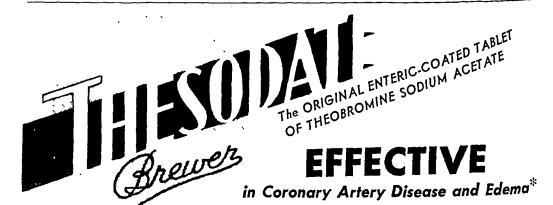
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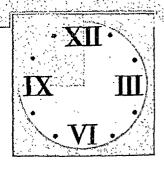
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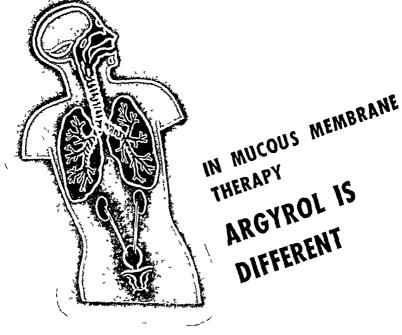
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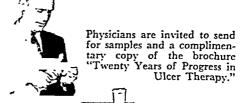
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# GENITO-URINARY INFECTIONS \_\_\_

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These publications have described the use of sulfadiazine in various infections of the genito-urinary tract:-

#### 1941

LaTowsky, L. W.; Baker, R. B.; Knight, F., and Uhle, C. A. W.: The Journal of Urology 46: 89 (July) 1941. Neter, E: The Journal of Urology 46: 95 (July) 1941. Satterthwaite, R. W.; Hill, J. H., and Young, H. H.: The Journal of Urology 46: 101 (July) 1941. Journal of Urology 46: 101 (July) 1941.

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Adair, F. L., and Hac, L. R.: The New England Journal of Medicine 227: 465 (September 24) 1942. Bethea, O. W.: The Mississippi Doctor 19: 351 (April)

1912.

Braach, W. F.: Annals of Internal Medicine 17: 943

(Detember) 1942. Douglas, R. G.; Davls, I. F., and Shandorf, J. F.; American Journal of Obstetries and Gynecology 44: 1026 (De-

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tember 23) 1942. Henderson, W. C.: The Journal of the American Medi-

cal Association 119: 259 (May 16) 1942.
Hornaday, W. R.: The Journal of the Iowa State Medical Society 32: 451 (October) 1942.
McKelvey, J. L.: Southern Medical Journal 35: 62 (Januara)

Marcall, W. N.: British Medical Journal 1: 622 (May 16) 1942. (Correspondence).

Pappas, J. P. (Major, Medical Corps, United States Army): The Military Surgeon 91: 681 (December)

Parsons, R. P. (Captain, United States Navy): United States Naval Medical Bulletin 40: 13 (January) 1942. Rantz, L. A.: California and Western Medicine 56: 347 (June) 1942.

Satterthwaite, R. W.; Hill, J. H., and Huster, V.; Venereal Disease Information 23: 249 (July) 1942.
Thomas, R. B.; American Journal of Syphilis, Gonorrhea and Venereal Diseases 26: 691 (November) 1942.

## 1943

Douglas, R. G.: Connecticut State Medical Journal 7:

g88 (June) 1913.

Herrold, R. D.: The Journal of the Michigan State Medical Society 42: 190 (March) 1943.

Noojin, R. O.: Calloway, J. L., and Schulze, W.: American Journal of Syphilis, Gonorrhea and Venereal Diseases

27: 601 (September) 1943.
Osmond, T. E. (Brigadier, Consulting Venereologist to the Arms): British Medical Journal 2: 72 (July 17)

1943. Vose, S. N.: The New England Journal of Medicine 229: 610 (October 14) 1913.

It is anticipated that further publications will appear on this subject during the coming year.





GENITO-URINARY
INFECTIONS \_\_



# SULFADIAZINE



Interest in sulfadiazine for the treatment of genito-urinary infections is growing apace. The most commonly encountered uses are—

### INDICATIONS

#### GONORRHEA

A number of investigators have reported the superiority of sulfadiazine to sulfathiazole and other sulfonamides in the treatment of gonorrhea. The report of the Committee on Research of the American Neisserian Medical Society recently stated that although less data for sulfadiazine are available, it appears to surpass sulfathiazole in therapeutic efficiency while manifesting about the same toxicity.

#### OTHER GENITO-URINARY INFECTIONS

Where the invading organisms in the genito-urinary tract are found to be E. coli, A. aerogenes, Shigella dispar, hemolytic streptococci or staphylococci, sulfadiazine by mouth is indicated. Sulfonamides are relatively ineffective against Streptococcus faecalis.

#### ADMINISTRATION

#### GONORRHEA

For acute gonococcal urethritis in the male, a dosage of 2 Gm. daily for from 4 to 8 days has been recommended. Alternatively, a dose of 4 Gm. daily, in divided doses for 5 days, has also been recommended.

#### OTHER GENITO-URINARY INFECTIONS

For genito-urinary infections other than gonorrhea adults should receive an initial oral dose of 0 o5 Gm./kg.

of body weight (about 0 023 Gm./lb.), followed by 1/3 of the initial dose every 4 hours day and night until the temperature has been normal for from 3 to 5 days. In very serious infections, somewhat higher dosage may be given. For a complete discussion of dosage, see *Lederle* literature; or, New and Nonofficial Remedies, edition

1943.
During treatment with sulfadiazine, sulfathiazole or sulfapyridine, alkalis sufficient to maintain an alkaline urine should be administered unless contraindicated; and liquids should be given to produce a daily urinary output of between 1,000 and 1,500 cc. It is important to establish a full urinary output prior to the institution of sulfonamide parenteral therapy.



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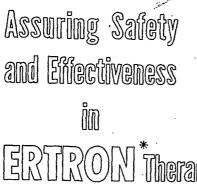
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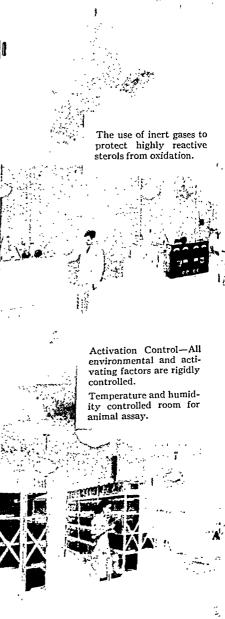




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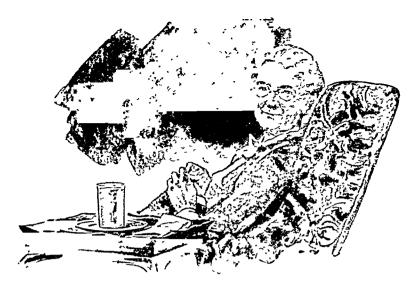
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\*Proc. Soc. Exp. Bio. and Med., 1934, 32, 241-245. \*\* Laryngoscope, 1935, XLV, No. 2, 149-154

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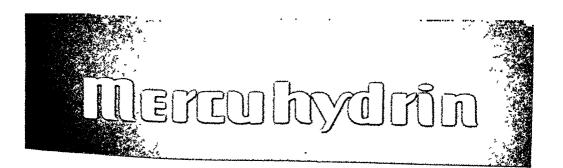
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\*Drs Frederick H. Falls, George H. Rezek and S. T. Benensohn, Surgery, Gynecology and Obstetrics, September, 1942, Vol. 75, pp. 289-299.

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**VOLUME 44** 

FEBRUARY 1, 1944

NUMBER 3

# Editorial

# Federal Emergency Maternal and Infant Care Program in New York State

Summarizing the enormous amount of work already done on this program by the Medical Society of the State of New York and the officers of State agencies, the Council Committee on Public Health and Education (and subcommittees) submits a report to the physicians of the State on page 295 of this issue. Immediately following the Council Committees' report will be found the Information Circular for Physicians (E. M. I. C. No. 4, Revised to December 1, 1943) of the New York State Department of Health.

No one who reads these reports can fail to be impressed with the complexity of the problems to be solved. Four conferences of the Council Committees of the State Society and the Department of Health both of the State and of New York City had to be held before the State Department of Health could and did submit "its first proposal for an operating plan under the rules and regulations of the Childrens' Bureau on June 18, 1943." Obviously, maternity and infant care for the dependent wives and infants of servicemen in the designated classes had to be and was furnished by the physicians of the State while these discussions as to details of the administration of the plan were being carried out. "Immediately after returning from Washington," says the report, "Dr. Edward Godfrey, Jr., State Commissioner of Health, requested a conference with the appropriate committees of the Medical Society of the State of New York. The first meeting was held on April 7, 1943." Many features of the Childrens' Bureau program were jointly discussed at this meeting.

"Although the members of the conferences were dissatisfied with several aspects of the program, there never was any objection to its objective; namely, to assure good maternity and infant care for the families of men in the armed services." Criticisms of certain basic requirements of the plan proposed by the Childrens' Bureau composed the agenda of the first four meetings, and as a result "the State Commissioner of Health made vigorous presentation to the Childrens' Bureau for changes in the plan."

Whereas Congress made funds available in March, 1943, and the conferences began on April 7, 1943, it was not until June 18, 1943. that the Commissioner of Health of the State of New York, responsible for the administration of the Federal program in the State, could prepare and submit to the joint conferences his first operating plan. This plan, after very thorough discussion, was finally put into effect in July 1, 1943.

At subsequent conferences "Many details of the plan and several major issues which had not been presented previously to the Childrens' Bureau were discussed and further adjustments in the plan are anticipated." These comprise possible early revision of the present policies respecting health supervision, fairer definition of the types and extent of the illnesses which the physician is expected to care for under the



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tWOLDMAN, E E, and POLAN, C G The Value of Colloidal Aluminum Hydroxide in the Treatment of Peptic Ulcer; A Review of 407 Consecutive Cases, Am. J. M. Sc. 198 155-164 (Aug.) 1939.





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# Universal (O) Blood Transfusion

The desirability of a readily available blood safe for immediate and unmatched transfusion is too obvious to require elaboration. The use of universal blood donors was first reported by Ottenberg<sup>1</sup> in 1911. Because the serum of universal (O) donors has a titer of agglutinins higher than 1:16 in 3 per cent of all donors, the indiscriminate use of such serums not infrequently leads to transfusion accidents. For this reason prohibition of such transfusions has been incorporated in the New York State Sanitary Code Unless actual titration demonstrates a titer of agglutinins in universal (O) blood so low as to be innocuous, a time-consuming laboratory procedure, the sanitary code does not permit such blood to be used for transfusions. Witebsky and his collaborators<sup>2</sup> solved the problem of isoagglutination by neutralizing isoagglutinins, anti-A and anti-B, by adding the homologous A and B antigens to the O blood, thus presumably making the treated universal blood relatively safe for emergency transfusions.

A simpler, safe, universal blood has recently been devised.3 O cells contain no agglutinogen, and pooled plasma rarely gives rise to genuinely untoward reactions. The suspension of the harmless O red cell in pooled plasma forms a synthetic blood, use of which promises to be

practically devoid of undesirable reactions. This method also permits the utilization of surplus red cells and plasma, a timely measure of economy. If red cells alone are needed by the recipient they can be suspended in a saline or glucose solution of an isotonic nature. If, for some reason, all of the synthetic universal blood is not used, or if the time allotted for the safety of such a mixture has been exceeded, the plasma can be reclaimed and again used as such. These factors create an economical as well as a relatively safe procedure for urgent transfusions which cannot await laboratory testing and cross-

The simplicity of this mixture of nonantigenic O erythrocytes and pooled plasma lends itself to ready and extensive usage. Large-scale studies are needed to further test and corroborate the safety of such blood for transfusion. When ample statistics are made available, and the risk entailed can be mathematically demonstrated to be minimal, this new method of giving universal blood for emergency transfusions then promises to be widely employed.

 Ottenberg, R. J.: J. Exper. Med. 13:425 (April) 1911.
 Witebsky, E., Klendshoj, N. C., and Swanson, P.: J.A.M.A. 116: 2654 (June 14) 1941. 3. Litwins, J.: J.A.M.A. 123: 630 (Nov. 6) 1943.

# Announcement

# 1944 ANNUAL MEETING

Medical Society of the State of New York

The 138th Annual Meeting of the Medical Society of the State of New York will be held Monday, May 8, to Thursday, May 11, 1944, inclusive, at Hotel Pennsylvania in New York City

COUNCIL COMMITTEE ON CONVENTION

## FREQUENCY AND COURSE OF CANCER IN DIABETICS

FRIEDRICH ELLINGER, M.D., New York City, and Harold Landsman, M.D., Jamaica, New York

CANCER and diabetes are two diseases which have some features in common: both are diseases of the aging population predominantly, both occur frequently, and both are characterized by a disturbance in the carbohydrate metabolism. Simultaneous appearance of cancer and diabetes in the same patient is, therefore, apt to attract interest from various points of view.

The first extensive study in this field was the paper "Diabèle et néoplasmes" by V. Tuffier,¹ published in Paris in 1888. In this paper 54 cases of diabetes associated with different kinds of tumors (thirty-three of which were malignant) were reported. In Tuffier's opinion, intestinal cancers showed remarkably slow growth and the tumors were more prone to ulceration. Malnutrition was given as the explanation for the slow growth.

Subsequent writers on the subject of cancer and diabetes reported more or less casually on the association of the two diseases. Schäfer, in a thesis from the University of Basel (Switzerland), published in 1931, collected 136 cases from the world literature, including Tuffier's material. A recent comprehensive study is the paper "Diabetes and Cancer," published in this country in 1934 by Alexander Marble.

While some of the preceding papers considered the occurrence of cancer in diabetics chiefly from the diabetic point of view, this paper, based on clinical material, emphasizes the oncologic aspect of this problem.

## Clinical Material

During the years 1933 to 1941 a total of 1,280 patients have been recorded as suffering from diabetes mellitus at Montefiore Hospital for Chronic Diseases in New York City. Out of these 1,280 diabetics 39 or 3.04 per cent had malignant tumors. These 39 cases of malignant tumors in diabetics are listed in Table 1 (page 260).

As can be seen, 33 out of the 39 patients died, 2 (Cases 17 and 24) from other causes than cancer. Four patients are still alive (Cases 11, 33, 38, 39) and in 2 cases (Cases 34 and 35) there was no follow-up.

From the Radiation Therapy Department, Montefiore Herpital for Chronic Diseases, New York City.

Formerly research radiotherapist, Montefiore Hospital; now research associate in radiology, Long Island College of Medicine, Brooklyn.

Formerly assistant resident physician, radiotherapy department, Montefiore Hospital; now Captain, (MC),

Autopsies have been performed in 23 out of 33 deceased patients.

Age and sex distribution of the 39 cancer cases is shown in Table 2.

TABLE 2.-Age AND SEX DISTRIBUTION

Sex	Total Cases	Age, 35-44	Age, 45-54	Age, 55-64	Age, 65-74	Age, Over 75
Male	12	0	3	4	3	2
Female	27	2	5	9	10	1
Total	39	2	8	13	13	3

#### Tumors

Site and frequency of tumors are shown in Table 3. The figures in parentheses refer to the numbers of the cases as listed in Table 1.

TABLE 3.-Site and Frequency of Tomors

	Location of Tumors	Number of Cases
1.	Gastrointestinal tract	14
	Rectum (4, 17, 18, 19, 21)	
	Sigmoid (38)	
	Cecum (5)	
	Colon (34)	
	Stomach (6, 20, 27)	
	Esophagus (26, 35)	
	Pancreas (31) Female sex organs	13
4.	Breast (1, 2, 3, 16, 28, 38)	10
	Uterus (11, 12, 24, 36)	
	Vagina (29)	
	Ovaries (25, 37)	
3.		3
	Lung (8, 9, 30)	
4.		9
	Skin, basal carcinoma (33)	
	Thyroid (10, 12)	
	Hypernephroma (14, 39)	
	Liver (7)	
	Urinary bladder (13) Lymphosarcoma (15)	
	Melanosarcoma (13)	
	Meianosarcoma (25)	

The average lifetime after discovery of tumors was 3.8 years, varying from four months up to sixteen years. In 9 instances (Cases 2. 4. 5, 14, 15, 17, 23, 37, 38) the patients lived five years or longer after onset of tumor symptoms.

The therapy of tumors is summarized in Table 4.

TABLE 4.-THERAPT OF TUMORS

Kind of Treatment	Number of Cases
Surgery only Cases 4, 5, 6, 7, 17, 23, 26, 27, 31, 32, 34	11
Radiation therapy only Cases 2, 8, 9, 11, 12, 13, 15, 24, 28, 29, 30, 33, 35, 3	c 14
Surgery and radiation therapy Cases 1, 3, 10, 14, 16, 18, 21, 22, 25, 37, 39	11
None Cases 19, 20, 38	3

TABLE 1

Nature of Tumor   Adenoseraciona of Security   Securi					abetes-					
1	Num-			Dis-	Insulin	T	Tumor			
2	ber			(Years)	(Units)	Adenocarcinomia of				s Remarks
A	2 3					Seirrhous mammae Adenocarcinoma of				Insulin in the be-
2   2   3   3   3   3   3   3   3   3	4	73	F	b 6	not re-	Adenocarcinoma.	Metastasis in colos- tomy opening no		D 6	Inculin in the he- ginning only small
Careinoma of storms   Careinoma of storms   Careinoma of the storms	5	58	F	a 3		sigmoid Colloid adenoma of	regional glands	0	D 5	Carcenoid of ileum tumor present at
10   65   M   b   5   10   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   R   D   1   100   Primary sarcoma of Lorges   None   Primary sarcoma   None   None   Primary sarcoma of Lorges   None   Primary sarcoma of Lorges   None   Primary sarcoma   None   None   None   Primary sarcoma   None   None   Primary sarcoma   None   N	6	63	И	s	None		- Regional glands	О	D 11/	
47	7	66	F	ь 10	100	Primary sarcoma of	Lungs	O	•	
10   65   M   b   5   10   Careinoma of throad (non-pillomatous type)   Supplications   Supplication   Suppli				8 b 3		Carcinoma of lung Squamous cell carci-	· Liver, brain			
11   59	10	65	M	ъ 5	10	Carcinoma of thyroic (papillomatous	i None	O and R	D 11/2	Tumor still present at autopsy
12   65   F   b   15   40   Adenocarcinoma of the bladder   None   R   D   3   Tumor present amounts   14   63   M   s   5   Hypernephroma   Liver, lungs, inguinal and mesenteric lymph nodes   Adenocarcinoma of the pancres   None   Liver, lungs, inguinal and mesenteric lymph nodes   Adenocarcinoma   R   D   10   Later no insulin   Later no insulin   Adenocarcinoma   R   D   10   Later no insulin   Liver, lungs, inguinal and mesenteric lymph nodes   Adenocarcinoma   R   D   10   Later no insulin   Liver, independent   R   D   Later no insulin   R   D   Later no i	11	59	F	b 17	30	Squamous cell carci-	None	R	L 4	
13   77   M   8   Sm all amounts   Adenocarcinoma of the bladder   Liver lungs, inguinal and mescateric   Liver lungs, inguinal   R   D   S   Later no insulin	12	65	F	ь 15	40	Adenocarcinoma of		R	D 3	Tumor present at
15   56	13	77	M	8		Adenocarcinoma of		R	D 11/-	Later no insulin
15   56 M   50   10   Reticulum cell lymphosoreoms of the pancreas Scirrhous earenomal Scirrhous earenom	14	53	M	s	5	Hypernephroma	and mesenteric	O and R	D 6	Later no maulin
16	15	56	M	ь 20	10	phosarcoma of	Abdominal, inguinal, femoral lymph		D 5	Later no mesulin
18	16	72	F	a 3	None	Scirrhous carcinoma		O and R	D 2	
78	17	69	F	a 3	5		None	•		fortura
78	18	54	$\mathbf{F}$	b 5	None		Liver	O and R	D 3	trophy of pancress
20 70 F b 2 Small Adenocarcinoma of the stomach Along aorta, liver O and R D 1/2  22 57 F s Considerable amounts 20, a few days on 1 y 50	19	78	M	ь 18	50	Carcinoma of the	None	None	рı	Tumor at autops)
20	20	70	F	b 2		Adenocarcinoma of	Regional nodes	None	D 2	Later no insulin
Consideration   Consideratio	21	69	M	s		Adenocarcinoma	Along aorta, liver	O and R	D 1/.	
24 62 F b 3 50	22	57	F	s	able	Giant cell carcinoma	Recurrence of tumor	O and R	D 1/2	<b>.</b>
25 53 F b 6 5 Carcinoma of the ovaries squamous cell carcinoma of the stomach stomach 26 66 F b 19 35 Squamous cell carcinoma of the stomach stomach 27 60 F b 5 15 Carcinoma of the stomach stomach stomach 28 43 F b 2 50 Carcinoma of the stomach cancer en curiasse Epidermoid carcinoma of the vagina, grade II Adenocarcinoma bronchi 30 64 M s None Epidermoid carcinoma of the pancreas or ampulla Vateri Adenocarcinoma of the sigmoid say of the sigmoid	23	64	F	a 10	20, a few		Liver, bone marrow	0	D 16	
25   53   F   b 6   5	24	62	F	b 3	only 50		7	_		nneumonia
26   66   F   b   19   35   Squamous cell carcinoma of esophagus stomach	25	53	F	b 6	5	Carcinoma of the	Recurrence	O and R	D 1	Severe cachexia
27 60 F b 5 15 Carcinoma of the stomach Secure cacheria operation 28 43 F b 2 50 Carcinoma, breast cancer en cuirasse 29 65 F s None Epidermoid carcinoma of the signal, grade II 30 64 M s None Epidermoid carcinoma bronchi 31 63 M b 8 60 Carcinoma of the pancreas or ampulla Vateri Adenocarcinoma of the signoid 33 79 M b ½ 30 Basal cell carcinoma of the signoid 34 60 F b 2 10 Carcinoma of the signoid 35 67 F b 2 None Carcinoma of the signoid 36 52 F b 1 None Adenocarcinoma of the usophagus 36 65 F s None Carcinoma of the signoid 37 46 F b 1 None Carcinoma of the usophagus 38 75 F s None None None None None Carcinoma of Scirrhous mammae Scirrhous mammae 38 75 F s None None Hypernephroma 39 10 Scirrhous mammae 30 64 M s None Stomach Recurrence of tomas severe cacheria operation severe cacheria operation severe cacheria operation R D 2 30 64 M s None Stomach R D 2 31 63 M s None Store Recurrence of tomas of the signal Recurrence of tomas of the signal Recurrence of tomas of the signal Recurrence of tomas of the secondary operation R D 2 31 63 M s None Recurrence of tomas of the signal Recurrence of the signal Recurrence of tomas of the signal Recurrence of the signal Recurrence of the signal Recurrence of the signal Recurrence of tops of the signal Recurrence of the		66	F	ь 19	35	Squamous cell carci-		0	D 1/2	
28   43   F   b 2   50   Carcinoma, breast cancer en currasse cancer en currasse cancer en currasse pletore death of the vagina, grade II   Adenocarcinoma bronchi   Liver   O D 1/1   Tumor present a autops;		60	F	b 5	15	Carcinoma of the	Mesenteric nodes at	O		
Cancer en cutrasse   Epidermoid   Carcinoma   Carcin					50	Carcinoma, breast	Pleura	R		Insulin shock a dare
30   64   M   8   None   Adenocarcinoma   Lung, liver   R   D 2						Epidermoid carei- noma of the va-	Inguinal	R	D 2	Thyroid adenoma
State   Stat	30	64	м	s	None	gina, grade II Adenocarcinoma	Lung, liver	R		
10   10   10   10   10   10   10   10			м		60	Carcinoma of the	Liver	0	D 1/2	autopsy
33   79 M   b 1/1   30   Basal cell careinoma of the signal and the signand   34   60   F   b 2   10   Careinoma of the signand   35   67   F   b 2   None   Careinoma of the esophagus   36   52   F   b 1   None   Adenocarcinoma of the utrus   Careinoma of the utrus   C	32	65		s	None	pulla Vateri Adenocarcinoma of	?		- /.	Tumor mass in operation scar
34 60 F b 2 10 Carcinoma of the sig- mod 35 67 F b 2 None Carcinoma of the 36 52 F b 1 None Adenocarcinoma of the trus 37 46 F b 1 None Carcinoma of Oraries (papillar) adeno- carcinoma)  Scirrhous mammae None L 16 O and R L 3	33	79	M	b 1/3	30	Basal cell carcinoma	None			
35 67 F b 2 None Carcinoma of the esophagus 36 52 F b 1 None Adenocarcinoma of the uterus 37 46 F b 1 None Carcinoma of ovaries (papillar) adenocarcinoma)  10 Scirrhous mammae Scirrhous mammae 38 75 F s None Hypernephroma  10 Scirrhous mammae Lung  None L 16 O and R L 3			F	b 2	10	Carcinoma of the sig-	•	-		
sophagus 36 52 F b 1 None Adenocarcinoma of Inguinal nodes R D 2 37 46 F b 1 None Carcinoma of ovaries (papillary adenocarcinoma)  Scirrhous mammae Scirrhous mammae 38 75 F 8 None Hypernephroma  None L 16 O and R L 3				b 2	None	Carcinoma of the				w-up
37 46 F b 1 None Carcinoma of ovaries (papillar) adeno- carcinoma)  38 75 F 8 10 Scirrhous mammae Skull on x-ray None L 16 None Hypernephroma Lung					None	Adenocarcinoma of	Inguinal nodes			
38 75 F 8 10 Scirrhous mammae Skull on x-ray O and R L 3 None Hypernephroma Lung						the uterus Carcinoma of ovaries (papillar) adeno-				
39 64 F u		75 64	F F	8 &		carcinoma) Scirrhous mammae Hypernephroma		None I O and R I	3	

#### Diabetes

The duration of diabetes in our patients varied from four months (Case 38) up to twenty-five years (Case 15).

The classification of diabetes has been based on the highest amount of daily units of insulin the patient received at all times. Similar to the procedure of Wilder a group classification has been made on this basis as follows:

Group A: Mild Diabetes: No insulin up to 20 units of insulin daily.

Group B: Moderate Diabetes: 21 to 40 units of insulin daily.

Group C: Severe Diabetes: More than 41 units daily.

By including in Group A cases without insulin and with small amounts of insulin, this classification takes into consideration the criticism raised by Joslin<sup>5</sup> against such a procedure, based on units of insulin. Joslin objects to the comparison of patients who do not take insulin with those who take insulin "because few doctors use identical diets, and few doctors have the same rules for the use or nonuse of insulin." This consideration is especially important in our group of patients, where many of the patients received part of their diabetic treatment outside the hospital. This classification considers, furthermore, the special condition of the diabetes patient after the age of 40, as recently explained by Handelsman and Bradford.6 Some who previously got along without insulin may require it as they grow older, while others who received insulin previously, might do well without insulin, by reduction in body weight.

The therapy of diabetes in our cases was diet and insulin. Out of the 39 cases all but 10 (Cases 6, 16, 18, 29, 30, 32, 35, 36, 37, 39) received insulin. The doses ranged from 5 to 100 units daily.

# Relationship Between Cancer and Diabetes

The temporal relationship between the onset of cancer symptoms or discovery of the tumor and that of diabetes is given in Table 5.

#### TABLE 5

Tumor observed before diabetes In 7 cases Cases 2, 3, 5, 16, 17, 23, 39 In 20 cases Cases 7, 9, 10, 11, 12, 15, 18, 19, 20, 24, 25, 26, 27, 28, 31, 33, 34, 35, 36, 37 Tumor and diabetes observed simultaneously In 12 cases Cases 1, 4, 6, 8, 13, 14, 21, 22, 29, 30, 32, 38

## Discussion

In evaluating the clinical material presented in this paper, we shall try to answer some of the questions which arise from the observation of malignant growth and diabetes in the same patient:

1. Does Malignant Growth Occur on the Basis of Diabetes, or Are Diabetic Symptoms Produced by Malignant Growth?-Table 5 seems to provide an answer to this question. As can be seen from this table, in only 7 out of 39 cases was the tumor discovered prior to diabetes. This agrees with the observations of Marble,3 who found that out of 161 cases in his group, in 132 the onset of diabetes preceded that of cancer symptoms. Our observations seem to give additional proof for the opinion expressed by Marble that "one would seem to be dealing in general with a group of patients who later developed cancer rather than with a group of patients with malignant diseases who developed diabetes."

2. Is the Diabetic More Likely to Develop Cancer?—In our series of 1,280 recorded diabetics we found 39 cases of cancer, or a cancer incidence of 3.04 per cent. This figure is in agreement with the cancer incidence of 2.95 per cent derived from a collected material of 14,332 cases of diabetes as listed in Table 6.

TABLE 6.-Cancer Incidence in Diabetics

Author	Year of Publication	Diabetes Cases	Cancer Cases	Evidence of Cancer (Per- centage)
v. Frerichs7	1884	254	6	2.36
Oestreicher <sup>8</sup>	1903	247	4	1.62
Naunyn <sup>9</sup>	1906	777	12	1.55
v. Noorden <sup>10</sup>	1917	176	12	7.00
Murphy and				
Moxon <sup>11</sup>	1931	827	8	1.00
Allan <sup>12</sup>	1930	840	39	4.76
Allan12	1931	684	38	6.60
Marble?	1934	10.000	256	2.56
Warren <sup>18</sup>	1938	527	47	8.90
Total		14,332	422	2.95

For the proper evaluation of these data the comparison of the cancer incidence in diabetics with the cancer incidence in the general population is necessary. The evaluation on the basis of death statistics meets serious difficulties, as explained by Marble.3

In the state of New York, cancer is a reportable disease. Through the courtesy of Dr. Louis C. Kress, Director of the Division of Cancer Control of the New York State Department of Health in Albany, a tabulation of pertinent data made by Mr. Weinstein, Statistician of the Division of Cancer Control, has been made available to us.\* The data are presented in Table 7.

As can be seen from Table 7, the total rate of cancer incidence for the age group 35 to 74 years in the general population was 460.7 per 100,000 population, or 0.46 per cent. In

<sup>\*</sup> We wish to express our gratitude to Dr. Kress and Mr Weinstein for permission to use this material.

TABLE 7.—CANCER INCIDENCE, STATE OF NEW YORK 1941—RATE PER 100,000 POPULATION

Age	Total	Male	Female
35-44 45-54	$\frac{142.1}{331.4}$	$84.0 \\ 239.4$	$\frac{200.4}{427.6}$
55-64 65-74	693.6 1,186.0	$615.9 \\ 1,215.4$	771.4 1,159.1
Total	460.7	393.7	527.9

the opinion of Mr. Weinstein, "It is evident that the incidence for the total experience is much less than the 3 per cent found in the diabetic population."

Since all of the reports on cancer incidence in diabetics summarized in Table 6 show at least a twice as high cancer incidence in diabetics as that found in the general population, the significance of the higher cancer incidence in diabetics seems to be well supported. The conclusion seems justified that the diabetic seems to be more liable to develop cancer. Even if it is as yet premature to determine the extent to which a diabetic is more likely to develop cancer, the fact of such a likelihood is not only of great clinical but also of great social interest; e.g., with respect to life insurance problems.

3. Site and Frequency of Cancer in Diabetics.—The extraordinarily high incidence of cancer of the pancreas observed by Marble<sup>3</sup> in his group of diabetics with cancer made it advisable to study the site and frequency of malignant tumors in our series of patients. The pertinent data are listed in Table 3. As can be seen, there are no unusual features: the first and second place are occupied by tumors of the gastrointestinal tract and female sex organs, respectively. This is the distribution usually found also in non-diabetics.

4. Course of Malignant Tumors in Diabetics. -As mentioned above, Tuffier had already noted remarkably slow growth of malignant tumors in diabetics. In 1903 Boas14 expressed the opinion that cancer developing in a patient with severe diabetes shows a very progressive course, whereas a cancer developing in mild diabetes is apparently less progressive. These observations suggest some influence of the diabetes on malignant growth. For the study of the possible influence of diabetes on the course of malignant growth in our series, the average lifetime in years after discovery of tumors has been listed in Table 8, and these data related to the severity of the diabetes. The classification of the diabetes is used as outlined above.

Table 8 shows in a statistically significant way the decrease in the average lifetime of the tumor patient with increasing severity of his diabetes. Our results confirm the opinions

TABLE 8.—Comparison of the Average Inferine After Onset of Tumors and the Severity of Diabetes

			===
Diabetes	Number of Cases	Average Lifetime in Years	m*
Group A: mild Group B: moderate Group C: severe	23 7 5	4.6 2.7 0.9	±0.99 ±0.41 ±0.72

\* m denotes the mean of the average and has been figured according to the formula,  $m = \frac{\sigma}{\sqrt{n}} (\pm \sigma = \text{standard deristion}; n = \text{number of cases}).$ 

expressed by Tuffier<sup>1</sup> and Boas<sup>14</sup> that the disbetic condition influences malignant growth.

5. Explanation of Particular Course of Malignant Growth in Diabetes.—The observation that the average lifetime of cancer patients decreases with the severity of the diabetes is not surprising from the clinical point of view, considering the fact that both diseases are highly malignant.

The question, however, could be raised whether the decline in the average survival time of tumor patients as shown in Table 8 is due to the malignant growth, or whether the more severe diabetes terminates the life of the patient before the malignant growth causes death. The fact that with the use of insulin in the treatment of diabetic coma, which caused death in 63.8 per cent of diabetics in the period 1897-1914, has declined as the cause of death to 3.6 per cent in 1937 in Joslin's series of diabetics, seems to be the answer to this question. "Insulin has almost eliminated diabetic death per se ..... The diabetic dies of his complications and not of his disease (Joslin, op. cit., page 283)." Since none of our patients with cancer and diabetes died in coma but all of the cases considered as moderate or severe diabetes received insulin until death, it seems justifiable to attribute the death to the malignant neoplasm.

Besides, a precipitant course of malignant growth developing in a patient with severe diabetes is easily understandable in the light of results of experimental cancer research.

Experiments by Alsteyne and Beebe, <sup>15</sup> Goldfeder, <sup>16</sup> Lustig and Wachtel, <sup>17</sup> Randoni, <sup>18</sup> Takizawa, <sup>19</sup> v. Witzleben, <sup>20</sup> and others have shown that glucose injections enhanced the growth of malignant tumors. According to Cori and Cori<sup>18</sup> the carbohydrate content of malignant tumor tissue is less than that of normal tissues and increases after injection of glucose up to 400 per cent. As another proof of the increased growth tendency of tumors\* after injection of carbohydrates their sensitization to the effects

<sup>\*</sup> Growth is accompanied by increased cell metabolism. Usually an increase in cell metabolism is accompanied by an increase in radiosensitivity (Ellinger, 22 page 273).

TABLE 9

Case Num- ber	Age	Age at Onset of Tumor	Sex	Kind of Tumor	Duration (Years)	Radiation Therapy	Disbetes
2	53	45	F	Scirrhous mammae	8	Yes	Mild
4	73	67	F	Adenocarcinoma of the rectosigmoid	6	No	Mild
5	58	53	F	Colloid adenoma recti	5	No	Moderate
14	53	47	M	Hypernephroma	6	Yes	Mild
15	56	51	M	Reticulo cell lymphosarcoma of the			
				pancreas	5	Yes	Mild
17	69	56	$\mathbf{F}$	Carcinoma recti	13*	No	Mild
23 37	64	48	$\mathbf{F}$	Melanosarcoma of the eye	16	No	Mild Mild
37	46	38	$\mathbf{F}$	Carcinoma of the ovary	8 <del>†</del>	Yes	Mild
38	75	59	F	Scirrhous mammae	16+	No	Mild

\* Patient died from heart failure. † Patient still alive; received neither surgery nor radiation therapy.

of roentgen rays may be mentioned, as shown by Holzknecht,23 Inouye,24 Mayer,25 and Osima.26 "In human individuals with spontaneous dia-

betes, there exists not only an overproduction of glucose in the liver, but also a diminished efficiency in the combustion of glucose in the tissues" (Joslin, op. cit., page 95). Thus diabetes creates a condition similar to that which glucose injections do. The progressive course of malignant tumors in patients suffering from a severe diabetes, as clinically observed, finds its experimental support.

Far more startling appears the fact that there seems to be a slowing down of malignant growth developing in the course of mild diabetes. In addition to the remarks of Tuffier1 and Boas14 as to this point, there are similar observations noted in more recent clinical reports: Krelenstein<sup>27</sup> mentioned 33 per cent absolute cures in patients suffering from carcinoma uteri and diabetes, while in nondiabetics with carcinoma uteri the absolute cures amounted to only 20 per cent. Gal28 and Kleine29 reported good results with radiation therapy in cases of carcinoma uteri combined with diabetes. Gal<sup>28</sup> attributes the good results to a supposedly increased radiosensitivity of the neoplasms in diabetes. This increased radiosensitivity is derived from the experiments with injection of glucose as quoted above. However, this statement is in some contradiction to the observations of Krelenstein, whose cases had been treated by surgery as well as radiation therapy.

With respect to these clinical observations, the relatively high average survival rate of tumor patients with mild diabetes as noted in Table 8 is interesting. The significance of this figure is supported by the fact that 9 out of our 39 patients with diabetes lived for 5 years or longer after discovery of the tumor. For closer analysis these cases have been listed in Table 9. Special attention has been given to the age at which the tumor started, the diabetic condition of the patient, and whether the patient received radiation therapy.

As can be seen from Table 9, the age of onset

of tumors rules out the assumption that old age contributed to the slow growth of the tumors, because with the exception of Case 4, all tumors started in the fourth or fifth decade of life, and in Case 37 at 38 years of age. Since only 4 out of the 9 patients received radiation therapy, the supposedly increased radiosensitivity of tumors in diabetics seems to be eliminated as a possible cause for the considerable survival time of the tumor bearers. The fact, however, that all but one case (Case 5) according to our classification belonged to the group who had "mild diabetes," is noteworthy. It seems that in the mild diabetes the course of malignant growth is slowed down.

6. What Explanation Can Be Advanced for the Understanding of Retarded Tumor Growth in Mild Diabetes?—As early as 1885, Freund30 in Vienna was able to demonstrate an increase in the blood sugar level in 10 patients suffering from malignant tumors, irrespective of the histology of the tumors. After surgical removal of the neoplasms, the blood sugar returned to normal in all but one case. This patient showed a recurrence. The increase in blood sugar in patients suffering from malignant tumors has been confirmed in many quarters. It has been found, however, that this is not a constant result (Kelly, 31 Rhodenburg, 32 Theis and Stone, 33 Woodward and Fry.34

Another interesting clinical observation was reported by Braunstein.35 He noticed that in diabetics with fast-growing tumors the blood sugar level decreased. "It seems as if cancer behaves in some instances as an antagonist to the diabetes." After surgical removal of the tumors, in some instances a recurrence of sugar excretion in urine was noted.

Additional proof of Braunstein's observations can be found in the statement by Marble3 that in his series some diabetics with malignant tumors, who required insulin in the beginning. remained sugar-free without insulin later on. Marble assumes that the apparent improvement in the diabetic condition is probably due to undernutrition. We were able to confirm Marble's observation in 7 of our patients (Cases

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TABLE 8.—Comparison of the Average Lifetime Affir Onset of Tumors and the Severity of Diabetes

Diabetes	Number of Cases	Average Lifetime in Years	m*
Group A: mild	23	4.6	±0.99
Group B: moderate	7	2.7	±0.41
Group C: severe	5	0.9	±0.72

\* m denotes the mean of the average and has been figured according to the formula,  $m = \frac{\sigma}{\sqrt{n}} (\pm \sigma = standard deristion: n = number of cases).$ 

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<sup>\*</sup> Gron
Usually a
increase
increase

\* Gron

is accompanied by an
increase

\* 12 page 273).

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Case Num- ber	Age	Age at Onset of Tumor	Sex	Kind of Tumor	Duration (Years)	Radiation Therapy	Diabetes
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14	53	47	M	Hypernephroma	6	Yes	Mild
15	56	51	M	Reticulo cell lymphosarcoma of the			
		<del>-</del> -		pancreas	5	Yes	Mild
17	69	56	F	Carcinoma recti	13*	No	Mild
23	64	48	F	Melanosarcoma of the eve	16	No	Mild
37	46	38	F	Carcinoma of the ovary	8†	Yes	Mild
38	75	59	F	Scirrhous mammae	16÷	No	Mild

\* Patient died from heart failure.

of roentgen rays may be mentioned, as shown by Holzknecht, <sup>23</sup> Inouye, <sup>24</sup> Mayer, <sup>25</sup> and Osima. <sup>26</sup>

"In human individuals with spontaneous diabetes, there exists not only an overproduction of glucose in the liver, but also a diminished efficiency in the combustion of glucose in the tissues" (Joslin, op. cit., page 95). Thus diabetes creates a condition similar to that which glucose injections do. The progressive course of malignant tumors in patients suffering from a severe diabetes, as clinically observed, finds its experimental support.

Far more startling appears the fact that there seems to be a slowing down of malignant growth developing in the course of mild diabetes. In addition to the remarks of Tuffier and Boas 14 as to this point, there are similar observations noted in more recent clinical reports: Krelenstein<sup>27</sup> mentioned 33 per cent absolute cures in patients suffering from carcinoma uteri and diabetes, while in nondiabetics with carcinoma uteri the absolute cures amounted to only 20 per cent. Gal23 and Kleine23 reported good results with radiation therapy in cases of carcinoma uteri combined with diabetes. Gal28 attributes the good results to a supposedly increased radiosensitivity of the neoplasms in diabetes. This increased radiosensitivity is derived from the experiments with injection of glucose as quoted above. However, this statement is in some contradiction to the observations of Krelenstein, whose cases had been treated by surgery as well as radiation therapy.

With respect to these clinical observations, the relatively high average survival rate of tumor patients with mild diabetes as noted in Table 8 is interesting. The significance of this figure is supported by the fact that 9 out of our 39 patients with diabetes lived for 5 years or longer after discovery of the tumor. For closer analysis these cases have been listed in Table 9. Special attention has been given to the age at which the tumor started, the diabetic condition of the patient, and whether the patient received radiation therapy.

As can be seen from Table 9, the age of onset

of tumors rules out the assumption that old age contributed to the slow growth of the tumors, because with the exception of Case 4, all tumors started in the fourth or fifth decade of life, and in Case 37 at 38 years of age. Since only 4 out of the 9 patients received radiation therapy, the supposedly increased radiosensitivity of tumors in diabetics seems to be eliminated as a possible cause for the considerable survival time of the tumor bearers. The fact, however, that all but one case (Case 5) according to our classification belonged to the group who had "mild diabetes," is noteworthy. It seems that in the mild diabetes the course of malignant growth is slowed down.

6. What Explanation Can Be Advanced for the Understanding of Retarded Tumor Growth in Mild Diabetes?—As early as 1885, Freund<sup>30</sup> in Vienna was able to demonstrate an increase in the blood sugar level in 10 patients suffering from malignant tumors, irrespective of the histology of the tumors. After surgical removal of the neoplasms, the blood sugar returned to normal in all but one case. This patient showed a recurrence. The increase in blood sugar in patients suffering from malignant tumors has been confirmed in many quarters. It has been found, however, that this is not a constant result (Kelly,<sup>31</sup> Rhodenburg,<sup>32</sup> Theis and Stone,<sup>33</sup> Woodward and Fry.<sup>34</sup>

Another interesting clinical observation was reported by Braunstein.<sup>35</sup> He noticed that in diabetics with fast-growing tumors the blood sugar level decreased. "It seems as if cancer behaves in some instances as an antagonist to the diabetes." After surgical removal of the tumors, in some instances a recurrence of sugar excretion in urine was noted.

Additional proof of Braunstein's observations can be found in the statement by Marble<sup>3</sup> that in his series some diabetics with malignant tumors, who required insulin in the beginning, remained sugar-free without insulin later on. Marble assumes that the apparent improvement in the diabetic condition is probably due to undernutrition. We were able to confirm Marble's observation in 7 of our patients (Cases

<sup>†</sup> Patient still alive; received neither surgery nor radiation therapy.

3, 4, 13, 14, 15, 20, 23) to whom insulin had been given in the beginning, and after cessation of insulin treatment in the course of tumor development the blood sugar level dropped to almost normal values (100–140 mg. per cent) and the urine could be kept sugar-free with a moderate diet.

Thus nature has provided most interesting experiments, which, in conjunction with the studies of Warburg and his associates<sup>36</sup> on the metabolism of tumor cells, may offer an explanation for the clinical observation of retarded growth of malignant neoplasms in mild diabetes.

According to these studies it is a peculiarity of tumor cells to glycolize sugar (produce lactic acid) under aerobic conditions as well as under anaerobic conditions; whereas normal cells usually oxidize sugar, and only if oxygen is lacking to make use of glycolysis. Warburg's work has been confirmed by Dickens and his associates.37 They as well as Crabtree38 have shown in addition that the metabolism of tumor cells is characterized by a respiratory quotient that is below unity (0.75 to 0.9). Whereas the normal cell splits dextrose into lactic acid, of which 80 per cent is resynthetized to glycogen and only 20 per cent is split off to form carbon dioxide and water, this glycogen resynthesis is suppressed in tumor cells. The energy requirement of tumor cells is covered by glycolysis chiefly. This, however, is a pretty wasteful use of carbohydrates, because only 42 per cent of the energy obtainable by oxidation is obtained by glycolysis. To cover its energy requirement the tumor tries to obtain as much carbohydrate from the host's body as possible. This has been shown experimentally by Tadenuma, Hotta, and Homa<sup>39</sup> and Cori and Cori.<sup>40</sup> They were able to demonstrate in chickens, in whose one wing a tumor had been grafted, that the venous blood coming from the tumor wing showed a considerably lower sugar content (having passed through the tumor) than the venous blood of the normal wing. The more or less increased blood sugar level of nondiabetic tumor hosts can thus easily be understood as an expression of carbohydrate mobilization from the storage places, to cover the greater requirement of the malignant growth.

Entirely different are the conditions in the diabetic tumor host; here, the increased blood sugar level is an expression of an overproduction of carbohydrates in conjunction with an interference of proper storage of carbohydrates. In severe diabetes, where carbohydrate formation reaches excessive values, metabolizing even fats and proteins to a large extent into carbohydrates, the amounts of glucose thus avail-

able are sufficient to initiate and support tumor growth without pronounced changes in the diabetic condition. In mild diabetes, however, the available amounts of glucose seem to be less sufficient. They may initiate tumor growth, but the disturbed carbohydrate metabolism of the diabetic host seems incapable of keeping pace with the increasing demands of the growing tumor, expression of which is the apparent amelioration of the diabetic symptoms, as observed by others and ourselves.

To resume the above-mentioned experimental and clinical observations, the answer to the question as to the retarded growth of malignant tumors in mild diabetes seems to be a competitive carbohydrate metabolism which to a certain extent starves the tumor. In support of this hypothesis results of recent experiments by Tannenbaum<sup>41</sup> may be quoted. This author was able to demonstrate that caloric restriction of the food intake per se inhibits in mice the appearance and growth of spontaneously occurring tumors as well as of induced ones.

The hypothesis of competitive carbohydrate metabolism seems to offer a suitable basis for the explanation of the slow growth of malignant tumors in mild diabetes and of the relatively high percentage (about 25 per cent) of survivors for five years and longer in our series of tumor patients with diabetes. This hypothesis explains, furthermore, the good results of radiation therapy in this condition as reported by Gal. Apparently they are not exclusively due to increased radiosensitivity, as Gal assumes, but are due to the fact that in these patients with a slowing down of the malignant primary tumor, the spread and growth of metastases is apparently slowed down too. The fact that equally good results were obtained by surgical treatment of carcinoma of the uterus in diabetics, as reported by Krelenstein,27 is emphasizing this opinion.

### Summary

- 1. Among 1,280 cases of diabetes mellitus recorded at Montefiore Hospital, 39 cases of malignant tumors have been found. This cancer incidence of 3.04 per cent is in agreement with a cancer incidence of 2.95 per cent derived from 14,332 cases of diabetes collected from the world literature.
- 2. Since the cancer incidence in a general population (state of New York in 1941) was 0.46 per cent, that means a definitely higher cancer incidence in diabetics.
- 3. In agreement with previous observations, a more virulent course of malignant growth in diabetics has been found with increasing severity of the diabetic condition. The average lifetime after onset of tumor symptoms in the series

presented in this paper decreased from 4.6 years in mild diabetes to 0.9 years in severe diabetes.

- 4. In agreement with the remarkably long average survival time of 4.6 years in mild diabetes, a closer analysis showed that 9 out of the 39 patients with cancer and diabetes lived for five years and longer after onset of tumor symptoms. All but one of these cases belonged to the group of mild diabetes. It is highly suggestive that mild diabetes produces a retardation of malignant growth and of spread and growth of metastases.
- 5. Results of experimental cancer research as well as some clinical observations are quoted in explanation of the higher cancer incidence in diabetics as well as of the apparent retardation of malignant growth in mild diabetes. Both phenomena could be traced to the abnormal carbohydrate metabolism.\*

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## PROGRESS IN CANCER CONTROL

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Progress in cancer control in the last twentyfive years while not dramatic has been steady and based upon scientific principles. The main lines of progress have been as follows:

1. The continued development of irradiation as a method of treatment and clarification of its advantages and limitations.

The constant improvement in surgical technic and the standardization of the surgical treatment of some forms of cancer.

3. The discovery of numerous carcinogenic substances and the proof of their importance in certain types of human cancer.

4. The discovery of the relationship between hormones and some cancers.

5. The institution of the lay cancer educational program designed to educate the individual in the necessity of seeking medical advice while the cancer is localized.

The general recognition by the medical profession that cancer is at first a localized process and then is curable.

7. The establishment of departments concerned with the control of cancer by the national and many state governments.

8. The more generous financial support of cancer research.

The organization of approved cancer clinics by the American College of Surgeons and by

some state health departments.

10. The incorporation of the study of cancer as a part of courses in biology in many high schools and colleges .- Bulletin, Women's Field Army, Iowa Division

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## RESPONSE TO TREATMENT OF PEPTIC ULCER

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R EPORTS from the Medical Corps of the British Army have shown a surprisingly high incidence of peptic ulcer of the duodenum and stomach in their evacuated casualties. Payne and Newman<sup>1</sup> report 12.5 per cent of all cases evacuated to the United Kingdom during the three months prior to April 29, 1940, were gastric and duodenal ulcers. Graham and Kerr<sup>2</sup> in a large Military Hospital found 31 per cent of the medical inpatients were admitted because of gastrointestinal complaints, and of these 55 per cent had duodenal ulcers and 9 per cent gastric ulcers. Hurst<sup>3</sup> reports the high incidence of digestive disorders in soldiers and an analysis of 285 cases of dyspepsia included 224 proved ulcers.

Similar findings have been reported in our own forces4 and have occurred even before the men were under fire. It was the opinion of the British observers that the ulcers did not occur primarily as a result of military service but had been present in civilian life and were activated by Army food. They felt that psychosomatic influences played a minor role and that what actually happened was that men with peptic ulcer in civilian life were able to carry on their usual activities because they would choose their own bland foods and eat frequently. If they should have an attack it was possible for them to remain at home for a day or two on a milk diet, In the army, of course, this is impossible. Whatever the cause, peptic ulcer of the stomach and duodenum present one of the most important reasons for medical disability in military life. Likewise there is a sharp increase in the occurrence of peptic ulcer in civilian life.

With this in mind, it seemed to us that a review of the cases of peptic ulcer seen in the Outpatient Department of the Buffalo General Hospital would be not only interesting but timely and instructive, particularly if we were able to show one method of therapy far superior to any other. While the Outpatient Department has been in existence for about two decades, the gastrointestinal section was formed late in 1938, and is staffed by members who are trained and practicing gastroenterologists. All cases of gastrointestinal disease are referred to this clinic for consultation, diagnosis, and treatment. The service is of six months' duration and no specified methods of therapy are laid down, each man treating the patients he follows as he desires. A review of the cases then should show us a rather

wide variety of therapeutic agents with the utilization of any new or proved methods.

Peptic ulcer is not a new disease. The cause is unknown. Our best definition is that for some unknown reason a portion of the lining mucosa of the stomach or duodenum loses its power to resist the digestive action of the peptic acid gastric juice. In order to treat peptic ulcer, the practitioner must understand the disease and be able to educate the patient. Peptic ulcer is a chronic disease just as much as is diabetes, rheumatic heart disease, or arthritis. The ulcer will tend to heal but will also tend to recur. There is a definite emotional control of ulcer, and many recurrences are due to psychosomatic upsets. For example, one of our patients had a severe recurrence of ulcer symptoms when his wife left him. Another had a recurrence following an argument with his foreman at work. This means that the physician in taking the history must properly evaluate the environmental and emotional life of the patient. Furthermore, he must sit down with this patient and carefully explain the disease, its chronicity, its response to treatment, and its tendency to recur. Too much stress cannot be laid upon the education of the patient by the physician. No less time should be spent with the peptic ulcer patient than is spent with the diabetic. If the patient is properly educated as to his condition, we firmly believe that recurrences are preventable. He must understand that a recurrence will occur if he becomes overly fatigued, physically or mentally, if worry or emotional upsets intervene, or if he falls back into the habits of dietary indiscretion. The broad principles of treatment of any ulcer of the stomach or duodenum lie, first, in a control of the acidity of the gastric juice and, second, in an adequate nonirritating diet. Today the physician is confronted with a wide variety of substances for the control of gastric acidity. It is our purpose to attempt to determine the efficiency of the various antacids used for the patients with peptic ulcer in the gastrointestinal clinic and not to formulate any new method of treatment.

Case Reports

From the years 1939 to 1942 there were 19,681 cases admitted to the Outpatient Department of the Buffalo General Hospital and of these 669 or 3.39 per cent were referred to the gastrointestinal clinic. Of this latter group 100 patients or 14.94 per cent were diagnosed on adequate grounds as having peptic ulcer. Of these 100 patients 89 were males, 5 of

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 4, 1943.

whom were colored, and 11 were female, one of whom was colored—a ratio of 8 males to one female and 16 white to one colored. It is difficult to explain the lack of incidence of peptic ulcer in women because certainly women tend to be more nervous and excitable than men. There is a possibility that women have some form of a protective hormone present which tends to prevent the occurrence of peptic ulcer. On admission to the clinic the youngest patient was 18 years of age, the oldest 82, with an average age of 43.3. At the onset of symptoms the youngest patient was 15 years old, the oldest 74, and the average age 26.4. The longest duration of symptoms was thirty years, the shortest 121/2 hours, with an average of 7.5 years, a good example of the chronicity of peptic ulcer. These symptoms, of course, were not present continuously during this period of years but the symptoms recurred in some cases at intervals of a few weeks and others only at the end of a number of years. Twenty-one patients had complications in the past. Hemorrhage occurred sixteen times, perforation nine, and obstruction three times. These are the three chief complications of peptic ulcer.

Ninety-nine of these patients were x-rayed. The other one was a patient with perforation who reported to the clinic after leaving the hospital. The importance of x-ray examination in disease of the upper gastrointestinal tract cannot be overstressed. Not only does it confirm the clinical diagnosis of peptic ulcer, but most importantly, it locates the ulcer. Duodenal ulcers seldom are malignant. Gastric ulcers are frequently malignant ulcers. A very grave responsibility rests upon the physician and the radiographer in following gastric ulcers to watch their healing. If carcinoma of the stomach is going to be cured, surgery must be done early. Early surgery in these cases can only be done by careful evaluation of the clinical and radiographic and gastroscopic findings in cases of gastric ulcer. In all cases of peptic ulcer repeated x-ray examination should be done to follow the healing of the lesion. In our series of 100 patients (Table 1) xray showed 69 duodenal ulcers, 16 gastric ulcers, and 10 patients with combined gastric and duodenal ulcers. Four patients had negative x-rays but these all had excellent histories: one a history of only two weeks' duration, and another had two previous gastric hemorrhages.

## Treatment

It is our feeling that an important factor in therapy of peptic ulcer is the diet. It should be free of stimulating, irritating, and rough foods. We have used a full, bland diet, as we believe that a diet which is too scant or too difficult for the patient to follow will not make for a cooperative patient. On the full, bland diet most patients are able to gain weight. We further believe that the patient should never be hungry, but that he should always have some food in his stomach to combine with the acid gastric juice. This condition is obtained by feeding the patient at least six times during the day and if he has any distress

#### TABLE 1 .- X-RAY

Duodenal ulcer	67
Penetrating duodenal ulcer	2
Gastric ulcer	4
Penetrating gastric ulcer	4
Pyloric ulcer	4
Prepyloric ulcer	3
Ulcer of angulus	I
Gastric and duodenal ulcer	5
Pyloric and duodenal ulcer	3
Prepyloric and duodenal ulcer	1
Ulcer of diverticulum, stomach, and duodenum	
Negative	- 4
Not done	
Total duodenal ulcers	69
Total gastric ulcers	16
Combined gastric and duodenal ulcer	10

during the night he must also have one or two night feedings.

For many years we have treated peptic ulcer with the following regimen:

- 1. Bland diet with frequent feedings, at least six times daily, and one or two feedings during the night depending on the severity of night symptoms.
- 2. Extract of belladonna 0.015 three times daily before meals.
- Calcium carbonate 0.60, one hour and two hours after each of the three main meals.
- 4. One teaspoonful of the following powder taken in 1/4 glass of water three hours after the three main meals:

Bismuth subnitrate	30
Light magnesium oxide	20
Prepared chalk	60

Because we have used this method of treatment for so many years, and for purposes of briefness and simplicity, in this discussion we are pleased to call it the "regular treatment," although it is by no means the one which was used most frequently in these patients. The use of belladonna as an antispasmodic is time honored and in our hands we feel that it has definite importance provided it is given to the limits of tolerance. The so-called "regular treatment" was used in 23 patients two of whom were unimproved (Table 2). Diet alone gave benefit eight times and diet and belladonna ten times. These 18 patients were obviously easily controlled and did not need intensive therapy. Calcium carbonate was used as an antacid, 1 Gm. of it having been taken one hour and two hours after meals, with one failure in 27 patients. Calcium carbonate and belladonna were used fifteen times with four failures. Colloidal aluminum hydroxide, 8 cc. in water every two hours, gave no relief of symptoms in four out of seventeen times it was used. Colloidal aluminum hydroxide and belladonna relieved symptoms six times and failed to relieve only once. Magnesium trisilicate 0.60, taken one hour and two hours after meals, relieved symptoms in

TABLE 2.—TREATMENT

	Improved	Unimprove
"Regular"	21	2
Diet alone	-8	_
Diet plus	Ŭ	
Belladonna	10	
Calcium carbonate with	26	1
belladonna	11	4
Colloidal aluminum hydrox-	13	Â
ide with belladonna	6	i
Magnesium trisilicate with	3	ī
belladonna	6	ā
Antacid powder with bella-	7	•
donna	16	1
Hospital	7	•
Surgery	-	
Gastroenterostomy	• 5	1
Resections	$\begin{array}{ccc} \cdot & 5 \\ 2 \end{array}$	ī
	1.41	19
	7.4.1	19

3 cases and failed once. When it was used with belladonna there were six improvements and three unimproved patients. The antacid powder previously described was given one teaspoonful in water one hour after meals and gave relief seven times with no failures. When extract of belladonna was added there was one failure and sixteen successful responses.

It has always been our feeling that peptic ulcer is not a disabling disease and that it can usually be best treated while the patient continues at work, if he has been properly educated about his disease. Some ulcers are truly intractable and will not improve, no matter what is done. Seven of our patients during attacks failed to get relief while treated as outpatients. These were hospitalized on ward medicine and all improved. One man became symptom free the moment he was admitted. The other six were treated with either diet alone or diet and antacids. All improved very promptly. Nine of this series of patients went to surgery. Gastroenterostomy was done five times with complete recovery and once, combined with ligation of the gastric and pancreatico-duodenal arteries for severe hemorrhage in a man of 65 years, with death. Resection was done three times. One patient, a man 65 years old, failed to recover.

#### Summary

In a series of 100 cases in the gastrointestinal clinic of the Outpatient Department of the Buffalo General Hospital peptic ulcer of the stomach or duodenum was treated by fourteen different acceptable methods. These methods were used a total of 161 times. There were only nineteen failures in this total number. The patients who suffered the nineteen failures frequently were relieved of their symptoms when the method of therapy was changed.

### Conclusions

1. Any of the acceptable methods of treating

peptic ulcer, if followed intelligently, will give relief in all except the intractable or complicated ulcers.

- 2. Peptic ulcer is a chronic disease characterized by remissions and the patient must be educated about his condition.
- 3. Failures in treatment are due chiefly to the patient's failure to cooperate or the physician's failure to educate or to the use of a method for control of gastric acidity which is too cumbersome or too annoying for the patient to carry out.
- 4. Successful treatment depends upon cooperation of the physician and the patient, and the control of gastric acidity by diet and antacids.

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#### Discussion

Dr. John D. Stewart, Buffalo, New York—Peptic ulcer, like thyrotoxicosis, chest disease, neoplasm, and certain other clinical problems, is handled to advantage by a group of physicians of varied interests. Internist, surgeon, radiologist, endoscopist, and laboratory scientist can each make his own contribution in the study and treatment of peptic ulcer, and the doctor as well as the patient profits by such joint management. No doubt both the enthusiasm of the surgeon and the reluctance of the internist will be tempered by free discussion and continued observation. For such reasons, surveys like the present one of material from large teaching hospital are always informative.

As the authors point out, peptic ulcer is a chronic disease subject to remission and recurrence. Results of treatment must be estimated with this point in mind. For example, the surgeon should make it his business to find out how the patient gets along after subtotal gastric resection for ulcer, not only immediately after operation but five years later. Perhaps we should speak in terms of five- or tenyear cures after operation for peptic ulcer, as after operation for cancer.

A statement made in the paper is so important I should like to take the liberty of repeating it. "A very grave responsibility rests upon the physician and radiographer in following gastric ulcers to watch their healing." This can hardly be overemphasized. It has been shown that cancerous ulceration of the stomach may respond symptomatically to a good peptic ulcer regimen such as the authors outlined, and the lesion may improve in radiologic and gastroscopic appearance. The cases of so-called ulcercancer which present the clinical picture of peptic ulcer comprise as many as one-third of the cases of gastric carcinoma in some clinics. The surgeon who has operated upon such patients after competent

gastroenterologists have treated them for peptic ulcer is apt to conclude that gastric ulcer should be considered as largely a surgical lesion. Certainly in the case of gastric ulcer, alertness on the part of the physician and cooperativeness on the part of the patient are essential if serious error is to be avoided.

#### UNTO THE HILLS

Down through the centuries the man of medicine has built a way of life which is embodied in that group of precepts known as professional ethics. Many doctors were attracted to the study of medicine in the first place because they perceived the high standing enjoyed by their family physician. Perhaps without placing it in words they realized as young men that there was nothing higher in this world than devoting oneself to a life of service to one's fellows. In the physician's very attitude of selflessness, he has thereby found himself. And that is the highest reward attained by any man.

Sometimes, in the hurly-burly of the scramble for a living, some doctors have strayed, in various ways, from the narrow path that leads upward. Now and then it is good to learn what others think of us. Such opinions from outside our rather narrow guild tend to stimulate one to once more look unto

the hills from whence cometh our strength.

Recently the Illinois Medical Journal had this

to say:

"One of the best tributes to the medical profession which has come to our attention appeared as an editorial in the *Grant County Herald*, Lancaster, Wisconsin, under date of January 13, 1943. The editor, Mr. A. L. Sherman, in his Remarks to a Young Friend Soon to Graduate in Medicine' presented first a paragraph from the dedication to Underwoods by Robert Louis Stevenson:

"There are men and classes of men that stand above the common herd; the soldier, the sailor, and the shepherd not infrequently; the artist rarely; rarelier still, the clergyman; the physician almost as rule. He is the flower (such as it is) of our

civilization.

"Then follow the complimentary statements to his young friend, which we present in full:

"You are, my young friend, on the brink of your career. Whether or not your career will be great or ordinary depends very much on yourself. You will, I understand, finish medical school this year. After that Uncle Sam will want you for awhile. This will be fine experience. Afterward and in the course of time, you will come back to private life, "put up your shingle," and begin to practice somewhere—maybe in the old home town, which you like so much and where you know everybody and are liked just for yourself. will be a help in some ways and in other ways a handicap-people will find it hard to realize that the little boy they saw at play so short a time ago is now a grown man and a full-fledged physician. Nevertheless, they will have an affection for you because they knew you when you were young.

People are like that.

"But wherever you go to practice you will be among human beings and will have a great opportunity for service. I hope you will be paid and well paid for what you do and I know you will try at all times to earn your money. Nevertheless, the rewards you receive—the great rewards—will not be monetary, but spiritual. The monument you will have in that far distant day when you leave this world and the transfer of the sormer. leave this world will not be stone—it will be some-thing in the memory of the many you served—the men and women, the families, the boys and girls—the people of your clientele. They will re-

member you for what you did for them and will be grateful to you.

"The reason, of course, is because of the peculiar and extraordinary relation which exists between the physician and his patient. You will see people as others rarely see them—when they are ill and despairing and need help desperately. You will not only be a healer of bodies—you will be a healer of souls. You will find the psychic side of your ministration of importance equal to the physical, ofttimes more so.

"'In ministering to human beings you will find them with the bars down and without glamour there will be none of the little ordinary masks and pretenses we all wear to meet the world. Yet even though the fellow-man you serve may be helpless, even undignified, you will find something noble and livable about him, something that transcends and is beyond any definition of the physical, something above the anatomical and that defies material analysis. He is a human being.

"'If you did not feel like this you would be no true physician and would be wasting your time as a doctor. Nor would you be much good to the

world.

"I remember, many years ago, hearing a young medico tell me he was "out for the money." The money was there to be made and he was going to "get his." "I would cut a man's head off for five dollars, if he paid me for it," this young scoundrel was fond of declaiming. His crass attitude horrified me and I read with pleasure a few years later that he had been prosecuted and punished as a particularly venal sort of quack. If ever a man's rotten and cynical philosophy caught up with him, this was a striking example.

"In conclusion let me say that I have kicked around this world for over half a century. I have always studied people, remembering the advice of the sage that "the proper study of mankind is man." I can say with Stevenson, that no calling in the world has a higher opportunity for human service than the true physician. This is not to say that all the doctors one meets are true and great, or that many of them are anything else but mediocre. But when you meet a good one—a great humanist as well as a great physician-how

his light does shine!

"In far flight and at long last, I see you—in mind's eye. You will be wearing spectacles, be-cause your once keen sight will be dim. Your shoulders will be rounded and your step slow, due to the advance of the years. Your hands will be gnarled—instead of white and supple as they are now. And maybe your breath will be a bit wheezy We will say nothing of wrinkles, of which you will doubtless have plenty. All these, and the wear inside, will be accolades of honor. You will have spent yourself in human service-which I can assure you is the greatest way possible to spend a life. And you will be tranquil, happy—not caring much what happens to yourself-you will have done so much for others.

" 'So you're going to be a doctor?

"Well, go in and win, my boy—and may God bless and keep you!"—Editorial in Southwestern

TABLE 2.-TREATMENT

	Improved	Unimproved
"Regular"	21	2 '
Diet alone	- 8	-
Diet plus	•	
Belladonna	10	
Calcium carbonate with	26	1
belladonna	īĭ	ä
Colloidal aluminum hydrox-	îŝ	Ä
ide with belladonna	6	í
Magnesium trisilicate with	š	î
belladonna	6	3
Antacid powder with bella-	7	Ū
donna	16	1
Hospital	7	•
Surgery	•	
Gastroenterostomy	. 5	1
Resections	ž	î
	141	19

3 cases and failed once. When it was used with belladonna there were six improvements and three unimproved patients. The antacid powder previously described was given one teaspoonful in water one hour after meals and gave relief seven times with no failures. When extract of belladonna was added there was one failure and sixteen successful responses.

It has always been our feeling that peptic ulcer is not a disabling disease and that it can usually be best treated while the patient continues at work, if he has been properly educated about his disease. Some ulcers are truly intractable and will not improve, no matter what is done. Seven of our patients during attacks failed to get relief while treated as outpatients. These were hospitalized on ward medicine and all improved. One man became symptom free the moment he was admitted. The other six were treated with either diet alone or diet and antacids. All improved very promptly. Nine of this series of patients went to surgery. Gastroenterostomy was done five times with complete recovery and once, combined with ligation of the gastric and pancreatico-duodenal arteries for severe hemorrhage in a man of 65 years, with death. Resection was done three times. One patient, a man 65 years old, failed to recover.

#### Summary

In a series of 100 cases in the gastrointestinal clinic of the Outpatient Department of the Buffalo General Hospital peptic ulcer of the stomach or duodenum was treated by fourteen different acceptable methods. These methods were used a total of 161 times. There were only nineteen failures in this total number. The patients who suffered the nineteen failures frequently were relieved of their symptoms when the method of therapy was changed.

#### Conclusions

1. Any of the acceptable methods of treating

peptic ulcer, if followed intelligently, will give relief in all except the intractable or complicated ulcers.

- 2. Peptic ulcer is a chronic disease characterized by remissions and the patient must be educated about his condition.
- 3. Failures in treatment are due chiefly to the patient's failure to cooperate or the physician's failure to educate or to the use of a method for control of gastric acidity which is too cumbersome or too annoying for the patient to carry out.
- 4. Successful treatment depends upon cooperation of the physician and the patient, and the control of gastric acidity by diet and antacids.

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#### Discussion

Dr. John D. Stewart, Buffalo, New York—Peptic ulcer, like thyrotoxicosis, chest disease, neoplasm, and certain other clinical problems, is handled to advantage by a group of physicians of varied interests. Internist, surgeon, radiologist, endoscopist, and laboratory scientist can each make his own contribution in the study and treatment of peptic ulcer, and the doctor as well as the patient profits by such joint management. No doubt both the enthusiasm of the surgeon and the reluctance of the internist will be tempered by free discussion and continued observation. For such reasons, surveys like the present one of material from large teaching hospital are always informative.

As the authors point out, peptic ulcer is a chronic disease subject to remission and recurrence. Results of treatment must be estimated with this point in mind. For example, the surgeon should make it his business to find out how the patient gets along after subtotal gastric resection for ulcer, not only immediately after operation but five years later. Perhaps we should speak in terms of five- or tenyear cures after operation for peptic ulcer, as after operation for energy.

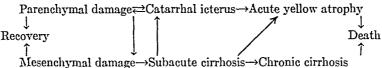
operation for cancer.

A statement made in the paper is so important I should like to take the liberty of repeating it. "A very grave responsibility rests upon the physician and radiographer in following gastric ulcers to watch their healing." This can hardly be overemphasized. It has been shown that cancerous ulceration of the stomach may respond symptomatically to a good peptic ulcer regimen such as the authors outlined, and the lesion may improve in radiologic and gastroscopic appearance. The cases of so-called ulcercancer which present the clinical picture of peptic ulcer comprise as many as one-third of the cases of gastric carcinoma in some clinics. The surgeon who has operated upon such patients after competent

usually either complete repair (recovery ad integrum), or complete destruction (acute yellow atrophy). With the additional involvement of the mesenchyme elements repair is demonstrated by connective tissue formation and all the evidence of the elements of an inflammatory process, namely, new capillaries, fibrin, leukocytes, and fibroblasts. Such cases may eventually go into the stage of subchronic or even chronic cirrhosis of the liver. Combined forms and transitions from one type of involvement to the other are also encountered.

depends upon the quantity of harmful substance and upon the ability of the organ or of the individual cells to resist the invader.

Additional causative factors are micro-organisms like the paratyphoid, including the Salmon ella group, the colon bacillus, and the staphylococcus, which may be imbibed with decomposed food. Decomposed food in itself may cause hepatocellular catarrhal interus by its toxic effect. As a rule the bacteria cannot be isolated, although Eppinger reported the presence of paratyphoid B in the parenchyma of the liver



Hepatocellular icterus is classified pathologically as follows:

- Noninflammatory
   Parenchymatous—acute or subacute catarrhal icterus
- 2. Inflammatory Postvaccinal hepatitis
- 3. Rarer changes causing jaundice
  Periacinous
  Subacute or chronic cirrhosis of the liver
  Icterus gravis
  Acute yellow atrophy
  Carcinoma of the liver
  Stones in the liver
  Telangiectasis of the liver
  Jaundice due to drug, food, or chemical
  poisoning

## Hepatocellular Catarrhal Jaundice

Hepatocellular catarrhal jaundice is not confined to either sex. It occurs usually during youth or maturity, but the extreme ages are not immune. The source of the causative toxic element is not definitely known. Certain chemicals taken internally produce changes in the parenchyma of the liver cells, such as atophan, salvarsan, neosalvarsan, large doses of chloroform, arsenic, more rarely bismuth, the specific toxins of the spirocheta pallida, phenylhydrazine (advocated by Eppinger as a therapeutic agent in polycythemia vera), and phosphorus taken internally with suicidal intent. Among causative chemicals contacted externally through occupation are tetrachlorathone, which is used in the manufacture of aeroplanes, paratoluenediamine, used in hair dye, phosphorus fumes inhaled by workers in match factories, trinitrophosphorus, and trinitrotoluenediamine, which is used in making x-ray screens and which occasionally causes mild jaundice (Henche). As in any damaging process of the body, the result of one patient who died of this disease. The causative bacteria are usually too rapidly destroyed in the liver for any of them to be detected later.

Some observers deny that food poisoning can be a causative factor by pointing out that one member of a family may eat the food and develop icterus while others can eat the same food without becoming icteric. However, toxins are not equally distributed throughout the bulk of food; furthermore, the quantity eaten varies with different members of the family, even to those who eat very little because of their keen sensitivity to the odor of contaminated food. Also, some individuals have a greater inherent constitutional resistance of the body at large and of the hepatocellular elements specifically so that, regardless of the quantity of food eaten, they do not develop jaundice.

The constitutional factor is demonstrated by the occurrence of icterus in more than one member of the same family. We had occasion to observe two brothers who were afflicted with jaundice. In one, the disease ran a normal course of six weeks with complete recovery. A year later, however, the jaundice recurred and terminated fatally as acute yellow atrophy. His brother developed hepatocellular catarrhal icterus and made a perfect recovery without recurrence. Acute outbreaks of hepatocellular catarrhal icterus have occurred that are not traceable to food or to any known cause. One epidemic of this nature was reported by Blumer; he termed the condition acute infectious jaundice.

Symptomatology.—The onset is that of a gastrointestinal upset of varying severity. Characteristically, within a few hours or even an hour after a certain meal, the patient experiences nausea, epigastric distress, sometimes vomiting which may be intractable for hours, and fre-

## **JAUNDICE**

Hepatocellular Catarahal Icterus and Hepatitis Following the Use of Yellow Fever Vaccine: Clinicopathologic Comparisons

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CTERUS, although an easily recognized symptom, offers great difficulty in diagnostic interpretation. Literally, icterus means staining of the tissues with the coloring matter of bile-namely, bilirubin-and, very rarely, with biliverdin. Bilirubin does not stain all tissues equally, and certain tissues, such as cartilage, cerebrospinal fluid, and cornea do not stain at all; the infundibulum cerebri stains with bile only in the grave form of icterus neonatorum. It is also characteristic of icterus that it deeply stains excretions and leaves the secretions free. Hence, urine, feces, tears, and perspiration are deeply stained, but gastric secretions and the spinal fluid are not stained. The gravity of the disease is determined by the underlying pathologic changes in the liver and the functional disturbance caused by such pathology, rather than by the degree of staining of tissues or duration of the icterus.

Rosenthal<sup>1</sup> has stated that elastic tissue does not stain with bilirubin. Although fat, an elastic tissue, is yellowish in jaundice, the stain can be washed away with water, indicating a covering of the surface rather than an imbibition of the bilirubin. Jaundice appears first on the sclerae, next on the face and trunk of the body. The extremities are never as deeply stained as the rest of the body. When jaundice begins, the bilirubin is in higher concentration in the blood than is evidenced on the body surface. As it subsides, the bilirubin diminishes from the blood first and from the sclerae last.

Although jaundice is the leading symptom, many other symptoms, as well as the outcome, will depend on the damage to the polygonal cells and the retention in the blood of other constituents of bile, such as bile acids; they will depend also on a disturbance in cholesterol and water metabolism and a disturbance in inorganic electrolytes (sodium, phosphate, sulfate, potassium, calcium, and magnesium). The so-called "emotional icterus" is undoubtedly due to an imbalance in the vegetative nervous system, which includes electrolytic imbalance.

According to frequency, ieterus may be caused by:

- 1. Obstruction of the flow of bile in the ducts, which is called regurgitation icterus (Rich).
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- 2. A disease process in the liver cells which brings about a disturbance in the secretion of bile and in the passage of bile from the cells through the canaliculi into the bile duets, termed absorption icterus.
- 3. Hemolysis, overproducing bilirubin so that a great part goes into the blood, thence into the tissues, which is known as retention icterus.

Our discussion will be confined to the type of icterus that is due to a disturbance in the polygonal cells of the liver, the so-called absorption icterus.

Absorption icterus is today recognized a due to changes in the parenchyma of the liver and is therefore truly hepatocellular icterus. I is unrelated to catarrhal duodenitis; neither i it due to a plug obstructing the sphincter o Oddi, as was suggested by Virchow. The firs pathologic proof of this fact was provided by Eppinger,2 who during World War I was afforder the opportunity of performing autopsies upo the bodies of three soldiers killed in battle at time when they were still icteric. The livers of these soldiers were found to be enlarged, th polygonal cells were distorted and staine poorly, the nuclei of the cells were deforme and likewise stained poorly, and the norma arrangement of cells was slightly disturbed wit the central vein somewhat eccentric. Som nuclear detritus was seen between the cells The lymph vessels appeared dilated and wer in close proximity to the blood capillaries There was no round cell infiltration and n other evidence of an active inflammatory process These findings were later confirmed by Klemp erer, Killian, and Heyd3 in this country.

The names "hepatitis" and "hepatosis" hav been applied to this disease by various authors. However, as has just been stated, the pathologi changes are confined to the polygonal cells an are not inflammatory in character. Therefore hepatitis is inaccurate, and hepatosis is to vague. The lesion being catarrhal, the nam hepatocellular catarrhal icterus, as was suggested by us in a previous publication, seems to be most appropriate.

Rössle<sup>5</sup> made an important contribution when the demonstrated that damage of the parenchymacells of the liver may be accompanied by in volvement of the mesenchyme cells. He found that in parenchymal involvement there was

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Fig. 1.—Catarrhal icterus. Liver with fresh central necrosis with inflammatory changes in the periportal region.

This is rare in the benign type of hepatocellular icterus, but is often present in the severe type, particularly where subacute yellow atrophy results.

During the stage of recession, the bilirubin of the blood gradually diminishes, urobilin and urobilinogen in the urine become less marked; icterus disappears from the extremities, but remains quite marked on the body. The sclerae continue to be tinged, sometimes remaining so for several weeks after all subjective and objective symptoms have abated. The symptoms begin to disappear in the fifth week; the disease usually terminates in six weeks, followed by improvement of appetite and increase in weight. However, cases have been encountered of two to three weeks' duration, others of two to four months'. In the latter event, it is reasonable to assume additional periacinous involvement (see Fig. 1) and mesenchymal involvement, but in completely reversible form. This is in contradistinction to cases of mesenchyme change eventually progressing to subacute or chronic cirrhosis of the liver. In the reversible type, with the disappearance of the symptoms the liver returns to normal size; otherwise the enlargement of the liver and spleen remains permanent. Occasionally, a case of protracted jaundice may be entirely reversible, as illustrated by that of a 66-year-old female, with typical symptoms of catarrhal icterus, only the liver being enlarged. Icterus deepened and per-

sisted for six months. Because of advanced age and liver enlargement, a diagnosis of metastatic carcinoma of the liver, primary lesion undetermined, was made. However, after six months, the patient began to improve and recovered completely.

*Prognosis.*—The prognosis is very favorable in the vast majority of cases. Rarely, after the disease has run a benign course for three or four weeks, a turn for the worse suddenly-takes place, the patient becomes confused and drowsy, the temperature is elevated, there is nausea and vomiting, deepening of jaundice, then coma and death. When the liver cannot be palpated one immediately suspects acute yellow atrophy of the liver. We recently had a case at the Beth Israel Hospital of a 14-year-old boy who had all the clinical evidence of benign type of hepatocellular icterus except that jaundice failed to subside. When he was admitted to the hospital at the end of the fourth month, the only grave findings were a very high bilirubin concentration in the blood and the fact that the liver could not be palpated. A note was made of the possibility of subacute yellow atrophy. On the sixth day in the hospital he suddenly complained of drowsiness, developed ecchymotic spots over the trunk, and died twelve hours later in coma. Autopsy by Dr. Alfred Plaut showed diffuse areas of complete destruction of the polygonal cells of the liver, and as in most of these cases, hemorrhagic areas in the duodenum and jejunum.

# Hepatitis Following the Use of Yellow Fever Vaccine\*

The recent outbreak of jaundice among our armed forces indicates under what treacherous circumstances hepatocellular disease with resulting protracted jaundice may occur. All observers have agreed that these cases clinically resemble the hepatocellular catarrhal icterus group. Fortunately, with the exception of a small percentage, the disease terminated favorably. 125 cases per month were reported in the first two months of this year. The comparatively small percentage of fatalities, in the face of the large number of affected individuals, amounted to about seventy deaths. The problem has been a major concern of Army authorities, since the health of the Army and all its constituents is vitally important to a well-coordinated war effort.

From reports of a number of postmortem studies it became evident that this affection is definitely inflammatory, in contradistinction to

<sup>\*</sup> Findlay, G. M., and MacCallum, F. O.: Trans. Roy. Soc. Trop. Med. & Hyg. 31: 297-308 (1937).

quently diarrhea. Pain is, as a rule, absent; however, in some cases it may be severe, radiating to the spine, right hypochondrium, and right shoulder, requiring a narcotic. When jaundice appears in such cases, it may be difficult to differentiate the disease from obstructive The following points are aids in the differential diagnosis. In hepatocellular catarrhal jaundice, icterus begins on the sixth to ninth day, and spreads very rapidly, whereas in the obstructive type, jaundice starts on the second or third day after the attack of pain, and advances very gradually. If obstructive jaundice occurs in one in whom the gallbladder had previously been removed, the icterus may begin within the first twelve hours after the attack of pain. On the other hand, progressive jaundice which is the result of pressure on the biliary ducts from without—by carcinoma of the head of the pancreas or adenoma of the papilla Vateriis usually preceded by gastrointestinal symptoms for many weeks.

It is important to point out that after the pain subsides, in hepatocellular catarrhal icterus, it does not recur, the remaining course of the disease being characterized only by the subjective symptoms of distress in the epigastric region or right hypochondrium. The finding of a considerable increase of urobilin and urobilinogen in the urine should warn the physician of a beginning catarrhal icterus, rather than an ordinary gastrointestinal upset. In contradistinction to acute gastro-enteritis, the patient's temperature is usually not elevated, although in children it may rise to 102 to 104 F, for several days, due to the hypersensitivity of the thermic center, and not to infection. Also, vomiting, which occurs in gastro-enteritis, does not persist in catarrhal icterus. The tongue is heavily coated, the patient frequently has severe headaches, and feels physically exhausted. This preicteric state may last six to nine days, after which a yellowish coloring of the eyes and a yellowish tinge of the face and body are noticed. This marks the beginning of the phase of true icterus.

The icteric phase has been divided into three stages—dry, catarrhal, and recessional (Held, Kramer, and Goldbloom<sup>4</sup>), analogous to catarrh of any other part of the body, such as of the nasopharyngeal region. In the stage of dryness it is our concept that the secretion of bile is markedly retarded in the polygonal cells of the liver. Due to the disturbed function of the liver cells, sufficient amounts of bile and bile pigments pass into the blood and thence into the tissues to give a moderate icteric tinge to the sclerae, but with a marked increase of the direct bilirubin of the blood, also of urobilin and uro-

bilinogen in the blood, urine, and feces. The liver is usually moderately enlarged and often tender to palpation, and in some instances particularly in children, the spleen is also enlarged.

During the catarrhal stage there is an overproduction (or running) of bile in the liver cells, large quantities of the bile entering the blood so that the bilirubin content rises to 6 to 12 mg. The icteric index increases correor more. spondingly, the stool becomes acholic, and the urine is saturated with bile. Urobilin and urobilinogen during the catarrhal stage may temporarily disappear, arousing suspicion of complete obstruction. The liver may become considerably enlarged, due to the stretching of the capsule of Glisson, with pain in the hepatic region either spontaneously or elicited on pressure. The spleen may be somewhat enlarged. It is noteworthy that in obstructive jaundice the spleen is never enlarged. The subjective symptoms of the second stage are drowsiness, marked loss of appetite, slow pulse, sometimes even 40 to 50 per minute, simulating heart block, which is vagal in origin. The pulse rate can easily be increased by the administration of atropine.

After jaundice has appeared the gastrointestinal symptoms become milder. The urine contains albumin and many hyalin and granular casts. This may be attributed to a mild nephrosis which is reversible, disappearing entirely when the patient recovers. Usually there is no vomiting, but nausea persists and the appetite is poor with an aversion to food and consequent loss of weight. Pruritis is a marked symptom in hepatocellular jaundice and is especially annoying on the covered areas of the body, the patient preferring to sleep uncovered in an attempt to alleviate the itching sensation. An interesting phenomenon during this stage is a considerable diminution in the urinary output, verified by the Volhard water test. The patient is given 1,000 cc. of sweetened tea on a fasting stomach. Normally about 80 per cent of the quantity should be eliminated within forty-five to ninety minutes. If there is hepatocellular damage it may not be eliminated before three or more hours have passed. However, if the patient has diarrhea and is losing water from the intestines, the test is of no value. When improvement begins, the test not only becomes negative, but the patient may eliminate more than the intake-probably most of the water that has been retained in the tissues throughout the disease, although there is no external evidence of edema. In some instances the water metabolism is so disturbed that ascites, occasionally to a marked degree, may be present

esters. In severer cases the cholesterol-ester concentration may be considerably lowered so that acute yellow atrophy is suspected, but the cholesterol-ester returns to normal after a few days. The sedimentation rate may be slightly lowered. The duodenal contents show the presence of both bile and urobilin, indicating that we are not dealing with obstructive jaundice. Microscopically, a few pus cells, bilirubin crystals, and even cholesterol crystals may be found.

Pathology.—The earliest lesions consist of frank necrosis of liver cells in the central parts of the lobules. There are no inclusion bodies at any stage. Lesions differ distinctly from those of yellow fever. Fatty changes are not a conspicuous feature. Destruction of liver tissue and the removal of the debris is invariably accompanied by inflammatory reactions, and the term "hepatitis" is therefore proper. Investigations have shown changes in organs other than the liver. Marked edema, often accompanied by intense inflammation of the gastrointestinal tract, has been noted. The changes are usually pronounced in the cecum. The kidneys may present the picture commonly known as bile nephrosis. "Cholemic nephrosis" and acute or subacute splenic tumor are usually present. Hemorrhages, often extensive, in serous and mucous membranes are common. The central nervous system shows changes similar to those found in other severe toxic metabolic disturbances

### Functional Tests

The liver, seat of numerous functions, has been subjected to the most exhaustive laboratory studies in order to establish tests which can determine early pathologic changes in the different parts of the liver, such as ducts, Kupffer-stellate cells, epithelial cells, etc. One must agree with H. Eppinger's statement of many years ago, that despite the most diligent search for functional tests, their efficacy at the bedside is still greatly disappointing. The same author pointed out that many a young clinical assistant at the hospital is encouraged to search for functional tests, first by means of animal experiments and then on humans. The animal experiments give him a great deal of encouragement, but when he applies the test to the human, his disappointment begins. This is to be expected, in view of the fact that the liver, like the pancreas, has such an immense reserve and such extraordinary regenerative power that only when it is seriously, acutely diseased is there marked disturbance of its vital functions. In previous publications we pointed out that the more indispensable the organ to existence, the more compensatory mechanism does it possess. Thus, although seriously damaged by a pathologic process, the liver can respond to all the metabolic demands of the body for a long time. Animal experiments have shown that with only 15 per cent of the liver intact all functions can go on undisturbed. On the other hand, less vital organs, particularly those that are not indispensable, such as tonsils, nails, appendix, or prostate, if only moderately diseased, can cause disturbed function to such a degree that the removal of the affected organ or part of the organ becomes obligatory for the protection of the body at large. Another important factor determining the degree of disturbed function is the stage of the disease. An important organ, such as liver, kidneys, or lungs, when acutely diseased, will have disturbance in function out of proportion to the degree of pathology; but when chronically diseased the pathologic changes are entirely out of proportion to their disturbed function Nevertheless, despite all these shortcomings, in cases of liver damage with jaundice, the scientific approach to the study of functional disturbances of this vital organ is sufficiently interesting and often of such diagnostic and prognostic value as to justify the utilization of the known tests. If they are of assistance in only a small number of cases, all effort expended in their application is well compensated. We cannot sufficiently overemphasize here, as in diseases of all organs and in all stages of pathologic involvement, the primary diagnostic importance of careful physical examination and notation of clinical symptoms. Functional laboratory tests serve only as confirmatory evidence. Extensive bedside experience has taught that if laboratory examination fails to agree with the clinical concept, the latter is more frequently correct.

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In this discussion it is not our intention to describe these functional tests; the procedures are contained in all laboratory manuals of clinical pathology. We rather aim to point out their direct value and their reliability from a prognostic and diagnostic viewpoint.

Water Test.—In prognosis the simple water test mentioned previously is of great value. As long as the elimination of the fluid is markedly retarded the disease is still at its height; and in those protracted cases of jaundice where the test gives low results and the natural urinary output is also very diminished, one is still in doubt as to whether such a patient may not develop a subacute or chronic cirrhosis of the liver, or even acute atrophy. Although the water test is very simple, it is remarkable to note how infrequently it has been employed, and it deserves greater emphasis.

Bilirubin Content in the Blood.-This is an

hepatocellular catarrhal icterus. It has therefore rightfully been named hepatitis.

Etiology.—John P. Fox8 and his coworkers studied 494 cases of postvaccinal jaundice, with twenty-four deaths. Their findings prove that pathologically they were dealing with definite inflammatory changes of the liver parenchyma. The liver was usually smaller, greenish, or yellow-red, there were areas of granulation, and in some parts small nodular areas. The left lobe was more involved than the right. Microscopically the cells showed extensive degeneration and necrosis. Secondary changes of a reparative nature were observed, consisting of hyperplasia of peripheral cells and of bile ducts and proliferation of fibrous tissue. In some cases the lesions resembled what Boyd9 described as infectious biliary cirrhosis, but differed in that it was associated with a marked degree of portal cirrhosis. They found hyperemia as well as free hemorrhages in the small intestines, as did other authors. These authors feel that the disease was caused by certain lots of vaccine. They also feel that there was some second factor. It is our concept that the second factor was either constitutional or nutritional.

Results of investigations to date have been negative as far as a demonstration of a transmissible agent is concerned. The outbreak of jaundice in the Army is not Weil's disease, leptospiral infection, bacterial infection, infectious mononucleosis; it is not yellow fever or a modified form of yellow fever. Yellow fever virus has not been recovered from any material, that is, blood, bile, urine, liver, etc., of jaundiced patients. Extensive research for the cause has thus far shown that the most likely underlying factor is a virus in the vaccine for yellow fever, hence the name, "postvaccinal" hepatitis (Circular 95 from the Surgeon General's office, August 31, 1942). The decision to continue vaccination is most praiseworthy. Although possible ensuing jaundice is most unpleasant, the risk of exposure to yellow fever is far greater.

The conclusion of the Surgeon General's office concerning the outbreak of this type of jaundice following the administration of certain lots of yellow fever vaccine is that it is not contagious, and hence does not constitute a danger to the public health.

As in hepatocellular catarrhal jaundice, the question is posed, why do the vast majority of vaccinated subjects escape hepatitis? Here too the constitutional status, vague as it may be, must be taken into consideration. Also, variations in the general state of nutrition of the vaccinated subject are important factors. Through studies in nutrition, such as those of Joliffe and Rich on vitamin B, and the extensive

chemical investigations on the relation of choline to the susceptibility of the liver to disease (Vincent du Vigneaud, of Cornell University, on the significance of labile methyl groups in the diet and their relation to transmethylation), it is hoped that some uniformity of diet may eventually be the protective and prophylactic agent against liver affections.

Rivers, of the Rockefeller Institute, among other investigators, has pointed out that the virus, as such, is responsible for a number of infections, such as influenza, poliomyelitis, herpes zoster, and some forms of encephalitis. The severity of the disease or the fatal outcome often depends on a superimposed infection, such as by streptococcus or pneumococcus. One may therefore venture the statement that postvaccinal hepatitis does not run a fatal course and the disease is even entirely reversible, since as a rule there is no superimposed infection; also, that as long as the functional damage to the liver is not severe, recovery takes place.

Symptomatology.—Unlike hepatocellular catarrhal icterus, where gastrointestinal symptoms begin several hours, or at most one to two days after the ingestion of a certain food, in postvaccinal jaundice many weeks or months may elapse between yellow fever vaccination and the onset of gastrointestinal symptoms. As a rule, they vary in severity and are considerably milder than in catarrhal icterus. Jaundice, which varies in intensity, develops more slowly. The prodromal symptoms may also consist of fatigue, lassitude, and anorexia. In some cases nausea, diarrhea, and vomiting may be present. The temperature is usually normal or slightly elevated. Even during this preicteric state physical examination may disclose moderate enlargement of the liver, which is tender in 20 per cent of the cases. The spleen may be moderately enlarged. Joint pain and urticaria are present in about 20 per cent of the cases, suggesting that the condition may be allergic in origin. However, all other manifestations of allergy, such as eosinophilia, were absent. The diminution of urinary output is considerable and becomes very marked at the height of the disease. In addition to bile pigment, the urine also contains albumin and casts, and there is an increase in amino acids. The stool is usually acholic; occasionally bile and bile acids are present. At the height of jaundice the bilirubin in the blood reaches a high though variable level. As the jaundice subsides, the bilirubin likewise diminishes so rapidly that it may become entirely normal before the last vestige of jaundice Although the total has left the face and chest. cholesterol is lowered there is no disturbance in the relation between cholesterol and cholesterolreblady 1, 1911

show the advancing pathology of the liver before acute yellow atrophy, and the advanced stage of acute yellow atrophy.

Hippuric Acid Test (Quick<sup>21</sup>).—According to many authors, if the hippuric acid test is positive it is an indication of hepatocellular damage. The test is based on the detoxifying activity of the liver cells on benzoic acid.

Serum Phosphalase Test.—This test aids in differentiating between obstructive and non-obstructive jaundice. However, some authors have found that the phosphatase is acutely disturbed in both types of jaundice. It is also elevated in a large number of cases of neoplastic involvement of the liver.

Hanger<sup>22</sup> Flocculation Test.—The index of disturbance of the liver parenchyma is determined by this test. With normal human serums the emulsion of cephalin-cholesterol antigen remains as a stable homogeneous suspension, but with serums from patients with diffuse hepatitis the lipoid material tends to flocculate and is precipitated to the bottom of the tube. Notation is made at the end of twenty-four and forty-eight hours as to the amount of flocculation and precipitation that has taken place.

Sodium d-Lactate Tolerance Test.<sup>23</sup>—This test for hepatic function depends on the ability of normally functioning hepatic cells to convert blood d-lactate into glycogen. The dextrorotatory form of lactic acid is the physiologically occurring isomer encountered as an intermediary product in the carbohydrate cycle involving muscle and liver. Recently C. Cohn<sup>24</sup> confirmed these findings and stated that this is an important test in differentiating between hepatocellular and obstructive jaundice. Retention of 5 mg. of the d-lactate per 100 cc. or more of the injected lactate, after one-half hour, indicates hepatocellular injury.

## Treatment

Pre-Icteric Stage. - The same method is applied to cases of catarrhal icterus and postvaccinal hepatitis. During the prodromal stage, when the gastrointestinal symptoms are in the foreground, particularly if vomiting and diarrhea are persistent, dehydration is likely to result. The intravenous administration of 10 per cent glucose in normal saline, at least 500 cc. twice daily, is an effective prophylactic measure. In rare cases of protracted vomiting the slow continuous intravenous method should take preference, and in protracted diarrhea, enemas of normal saline solution. It is our firm conviction that active treatment in the early stage may serve to reduce the severity of jaundice and shorten the course of the disease. Intravenous glucose infusion stores glycogen in the liver and thus may prevent serious damage to the liver cells.

Among large aggregations of men, such as in Army camps, periodic outbreaks of gastro-enteritis are inevitable, and symptoms are sometimes severe enough to threaten dehydration. When such outbreaks occur, dehydration can be prevented by the previously mentioned methods. Should this gastro-enteritis prove to be a forerunner of jaundice, treatment will have served a double purpose—the immediate combatting of dehydration, and the lessening of severity and duration of jaundice.

If gastric symptoms are accompanied by a marked increase of urobilin and urobilinogen, suspension of ensuing jaundice is more definite.

When vomiting persists, either iced or sweetened hot tea, depending on the patient's preference, should be given. Occasionally aspiration of gastric contents through a Levin tube—passed preferably through the nose—and lavage of the stomach with normal saline or a mild alkaline solution may become necessary.

Should nause and vomiting persist despite treatment, further measures consist of small peroral doses of 0.006 Gm. of cocain hydrochloride or 0.25 Gm. of anesthesin.

When constination as well as vomiting is in the foreground, small doses of calomel-0.03 Gm. every half-hour until ten tablets are takenfollowed by 6 ounces of citrate of magnesia are effective. As long as the patient feels exhausted and takes very little food, it is most advisable that he remain in bed. After a day or two, when vomiting has stopped, feeding should begin with peptonized milk, milk mixed with thin barley, tea with milk, sweetened fruit juices, baked apple, or apple sauce. As improvement continues the diet is increased with toasted bread, proteins such as chicken, fish, and cottage cheese. Proteins should not be withheld, since the liver is greatly dependent on their intake, particularly the amino acids, as indicated by the work of Ravdin,25 who advocates the use of amino acids intravenously in order to protect the liver cells.

Icteric Stage.—If the patient has no elevation of temperature he may be out of bed for the greater part of the day, and even out of doors. He should not be permitted any work, either physical or mental, the latter being more harmful. The bad taste in the mouth and heavily coated tongue require hygienic attention to mouth and teeth. The skin, which usually becomes dry and scaly, should be sponged twice daily with 2 per cent menthol in alcohol, which will allay or alleviate itching.

Diet is the most important feature of the management, as has been substantiated by ex-

important determination. Whether we test for bilirubin directly or indirectly depends on whether we are dealing with the hemolytic, absorption, or regurgitation icterus. It is vitally important to watch during the course of the disease to see whether the bilirubin in the blood is on the increase, and when it begins to diminish. If the bilirubin climbs continuously higher in the fifth or sixth week, prognosis becomes alarming and the outcome doubtful. The reverse is true if the bilirubin declines during the same period. The identical significance is attributed to the icteric index.

Icteric Index.—The icteric index, as modified by Alice Bernheim, 10 is a simpler test than bilirubin determination, and can well replace the latter. The normal index is 5. The zone of latent jaundice lies between 5 and 15. When it reaches 15 or 16, jaundice becomes evident. 115 was the highest index reported by Bernheim.

Bilirubin Elimination Test.—This test (Eilbott and Bergmann)<sup>11</sup> should be used only where definitely indicated, because the material is extremely expensive. One mg. of bilirubin per kilogram of body weight is injected into the blood and the length of time required for its elimination from the blood is determined. Normally the entire quantity disappears from the blood in two to four hours. In disease of the ducts as well as liver cells it may be retained in the blood for days.

Urobilin and Urobilinogen.—These substances in the stool and urine serve to differentiate the obstructive (regurgitation) type from the hepatocellular jaundice (absorption type). If urobilin is temporarily absent in the urine and feces the examination of the duodenal contents may be necessary. In complete obstructive jaundice urobilin and urobilinogen are absent from the duodenal contents, whereas in hepatocellular jaundice they are always found, even if moderately diminished.

Determination of Cholesterol and Cholesterol-Ester in the Blood.—This is another important test, as introduced by Thannhauser and Schaber 12 and carefully carried out in this country by E. Z. Epstein and E. B. Greenspan. 13 During wartime, because of the shortage of alcohol, the test presents an economic problem. It should therefore not be used too freely or routinely, but should be reserved for those cases that present difficulty as to the differential diagnosis between obstructive or hepatocellular catarrhal jaundice. In the former, the cholesterol is markedly increased, and the relation between cholesterol and cholesterol-ester remains undisturbed; in the latter the total cholesterol is diminished and the cholesterol-ester, which is normally present in twice the quantity of free

cholesterol, diminishes and may eventually disappear from the blood—a very ominous sign that the liver cells are being completely destroyed. Fortunately this is rare.

Bromsulfalein Test.—This test devised by Rosenthal<sup>14</sup> is very useful. 20-50 per cent of the dye is normally found in the serum five minutes after injection, and the serum is entirely free after thirty minutes. In cases of hepatic disease the serum will retain the dye varying from 3-99 per cent in thirty minutes.

Rose Bengal Test. 15—Gives retention of more than 50 per cent of the dye (10 cc. of 1 per cent solution of rose bengal) after eight minutes in the presence of hepatic damage.

Quick Prothrombin Determination. 16.—The concentration of prothrombin in the blood is a direct clue as to hemorrhagic diathesis, especially in obstructive jaundice. Since it is known that prothrombin is formed in the liver, deficiency of prothrombin is a definite indication of liver cell damage, and therefore treatment with vitamin K is indicated.

Galactose Tolerance (Richard Bauer<sup>11</sup>) and Levulose (H. Strauss<sup>18</sup>) Tests.—The former test is positive for true hepatocellular disease and the latter is indicative of disease of the biliary ducts; they are simple procedures. In the acute stage of jaundice these tests are of great value, but they are often negative in the chronic stage.

Blood Urea.—In protracted cases of jaundice the concentration of blood urea must be carefully observed. Often coaffection of the kidneys may cause increase of urea in the blood. However, when the urea begins to diminish markedly serious hepatocellular damage is indicated. In acute yellow atrophy, the urea may entirely disappear from the blood.

Protein Metabolism.—Addis19 showed that the liver contains a labile reserve of protein which is readily depleted during fasting and restored when protein is fed. Liver disease depresses regeneration of the plasma proteins because of the impaired ability of the liver to utilize protein normally. The albumin fraction in liver disease is affected more than the globulin, so that the albumin-globulin ratio is inverted, especially in hepatic cirrhosis. Marked inversion of the albumin-globulin ratio in acute hepatocellular disease indicates that the patient should receive sufficient protein in his diet. Although the feeding of protein does not increase the protein in the blood, as in nephrosis, it does serve to prevent further damage to the liver and aids in the prevention of edema and ascites.

Leucine and Tyrosine Tests.—Particularly by the simplified method of Lichtman, 20 these tests

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#### CLINICAL RESEARCH MEETING TO BE HELD BY THE NEW YORK ACADEMY OF MEDICINE

The New York Academy of Medicine will hold a meeting in the first week of April to provide a forum in which research workers of New York City and vicinity may present results of original research in clinical medicine.

This meeting is being arranged by the Committee on Medical Education of the Academy in view of the dearth of meetings of national medical societies before which research work has usually been presented.

Presentations will be limited to twelve minutes. A brief period of free discussion will follow each presentation. The publication of presentations is not a necessary condition but the Academy plans to publish in the Bulletin abstracts of presentations if the author so desires. The fact that material has in substance or in part been presented elsewhere will not be regarded as a bar to presentation, provided that the work represents recent research

The Committee extends an invitation to all research workers of Greater New York City and of neighboring cities within a radius of one hundred miles to submit an abstract, not to exceed two hundred words in length, of proposed presentation to the Secretary of the Committee on Medical Education of the Academy not later than March 1,

On receipt, a formal invitation will be extended by the Committee to the authors of papers selected for presentation to participate in this program.

### IF WE CAN KEEP OUR HEADS

There is no justification for the often careless or smug assertion that a postwar economic collapse is inevitable.

Let us look at the facts.

It is estimated that since 1940 we have as a nation piled up an extra one hundred billion dollars in purchasing power by the public. This will increase through 1944 by another twenty to thirty-five billions if we do not enter into excessive inflation. There is an additional three to eight billion dollars to be considered in our postwar planning if we consider the possibility of dismissal compensation and unemployment insurance to veterans and discharged war workers.

On the converse side, there is no question as to the pent-up demands accruing for various goods and commodities ranging from automobiles to housing

and household equipment.

There are, to sum up, both multitudinous needs

and the cash reserve to pay for them.

It is perfectly true that there are going to be some very sharp and painful cuts in postwar employment through certain industries; as, for example, in aircraft manufacturing, shipbuilding, ordnance, and railroading. The total drop may reach to six or seven million persons.

There are potential postwar employment gains, however, to offset these apparently staggering figures. The paper, textile, lumber, construction, and agricultural sectors, plus the trades, services, and nonpostponable public works, may require over ten million workers for full postwar uses.

It is further estimated that from one to three million people will return to schools and col-

leges.

There will probably be a postwar standing army

of from two to three millions.

A Department of Commerce economist with all and more of the above factors in mind estimates that the elimination of work hours in excess of forty per week, plus the retirement of older men and employed housewives, will then offset the return of soldiers to industry.

If all of these above summaries are even approximately correct, then our postwar period becomes a matter of planning rather than of emo-

tionalism.

Instead of being subjects of propagandism, we might rather straighten up and strive toward a certain few fundamentals. First, to prevent excessive inflation; second, to maintain our confidence in the continuation of free enterprise; third, to encourage new products and enlarged enterprise through a judicious tax program; and last, to prevent monopoly by either industrial cartels or labor unions, which might in the long run tend to throttle the development of lower prices and work for everyone who wishes it.

Is all this not a different approach than to fold up and to wait or plan for a government job? We, as doctors, have our places in the public economy and cannot shove our heads in the sands of indifference.—Editorial by Stanley W. Insley in Detroit Medical News

tensive experimental work. The value of protein diet as a protective measure against arsphenamine liver injury was first observed by Schifrin,26 and confirmed by Messenger and Hawkins,27 in Whipple's Laboratory at Rochester, New York. The effect of carbohydrates in protecting the liver cells has long been known. Choline deficiency causes extensive infiltration with fat; some amino acids (methionine, cystine) exert an effect on this process. Ravdin's work with amino acids has been mentioned before. Rich<sup>28</sup> demonstrated experimentally that an increase in vitamin B complex exerts an inhibitory effect on the development of cirrhosis in rabbits.

These remarks serve to indicate that in the treatment of hepatocellular disease the diet should be strictly confined to carbohydrates and easily digestible proteins; when the proteins cannot as yet be tolerated, intravenous administration of amino acids in order to keep up the nitrogen balance and prevent fatty changes in the liver should be resorted to. A vitamin B complex that is palatable and does not cause yeast-like regurgitation will aid in improving the appetite.

Often, throughout the entire course of jaundice, dilute hydrochloric acid, 10 drops in 8 ounces of water, should be sipped through a glass tube with meals. Small frequent meals, about five daily, are desirable. Carbohydrates should consist mainly of white bread, cereals, potatoes, custards; proteins of vegetables such as peas and lima beans, pot cheese, fish and chicken, and egg albumen. Fats should be withheld even during the time of convalescence, until the color of the stool has returned to normal and the bilirubin in the blood gives normal values. Small quantities should be allowed gradually, beginning with a teaspoonful of butter in 24 hours, or 2 ounces of sweet cream, or olive oil mixed with lemon juice poured over lettuce.

There is no specific medication to alleviate jaundice. Symptomatic treatment, in addition to dilute HCl, may consist in trying to overcome constipation, which is usually very marked at the height of jaundice. H. Eppinger advises as much as 0.5 Gm. three times daily, which we believe to be excessive and liable to cause gingivitis and stomatitis. Small doses, 0.03 Gm. of calomel every three or four days, to be followed by citrate of magnesia, are very beneficial. Although anemia is rare, it is present at times, in which case there is also macrocytosis. Daily intramuscular injections of liver and iron by mouth are effective. If jaundice persists for more than four or five weeks and has a tendency to deepen, and the bilirubin and icteric index in the blood increase, one may resort to

giving 10-20 units of insulin in daily injection preceded by 8 ounces of orange juice and h lowed by a carbohydrate meal.

### Conclusions

- 1. Hepatocellular catarrhal icterus and po vaccinal hepatitis are symptomatically alil Duration of the prodromal stage in catarrh icterus is six to nine days. It is considerab shorter than in postvaccinal hepatitis, in whi the gastrointestinal symptoms may prece jaundice by several weeks.
- The average course of hepatocellul catarrhal icterus is five or six weeks, with cor plete and rapid recovery. In postvaccin hepatitis, although the jaundice may not l pronounced, convalescence is extremely slov The patient may have disturbed appetite, sligh. secondary anemia, and elevation of bilirubin in the blood for several months.
- Postvaccinal hepatitis is most likely due to a virus contained in some of the stocks of vaccine for yellow fever.
- Postvaccinal hepatitis is pathologically a true hepatitis, but fortunately reversible in the majority of instances.
- 5. The simple Volhard water test, which is of great diagnostic and prognostic value, should be carried out more often.
- Proteins should constitute an important part of the dietetic regimen. When the patient cannot tolerate proteins because of digestive disturbance, amino acids should be given intrave-
- Intravenous glucose administration in the preicteric stage is an important prophylactic measure against possible dehydration. It serves the immediate purpose of lessening the severity of jaundice, and also shortens the course of the disease.
- In pro-Treatment is symptomatic. tracted jaundice, injections of 10 to 20 units of insulin daily are of great value.

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in the average case of congestive heart failure or edema from other causes, but salt restriction is

The average, normal person takes about 10 Gm. of salt a day and retains none of it over a period of time, but the patient with heart failure with edema, and also with edema from other causes, has a diminished capacity to excrete salt. These patients tend to retain salt when taking 10 Gm. daily, and some individuals are so sensitive to salt intake that matters go badly until the salt intake is reduced to about a gram a day. It is very difficult to reduce the salt intake below a gram a day and still maintain normal and adequate protein intake. The restriction, therefore, has a range somewhere between the normal of about 10 Gm. down to about 1 Gm. a day.

Now we come to the acids. We said that the extracellular fluid or edema fluid is a solution, an alkaline solution chiefly of sodium salts. administration of acids provides a threat to the acid-base equilibrium which excites the kidney to excrete base and the excretion of base by the kidney puts in a call for base which is fixed in the extracellular or edema fluid, with the result that the edema disappears if acid radicals are added to the diets. This may be done in various ways. It may be done by adjusting the diet so as to provide one which gives an acid ash, a diet composed chiefly of meat and cereals, prunes, cranberries, but no vegetables. Another way in which this may be done is to administer ammonium chloride or hydrochloric acid.

Every patient with edema and heart failure should, of course, be digitalized. We shall not go into this matter further here.

Finally, the administration of the organic mercurials deserves much consideration. The organic mercurial diuretic acts upon the kidney chiefly to impair tubular reabsorption. It causes an increase in the urine flow. The diuresis is chiefly a salt diuresis. Not only the water increases in the urine but the sodium base increases and increases in concentration as well as in the total amount, which suggests that the water leaves the tissues as a consequence of the loss of salt from the extracellular tissues.

Abundant water intake, salt restriction, administration of acids, digitalis, and organic mercurials may all be necessary or desirable in a given case. In some cases one or another may accomplish the purpose; in others a combination of some of them may be required.

There is a system of treatment of edema which provides for practically nothing more than virtual flooding of the patient with water as a means of abolishing edema. That is perhaps not the best system in most cases. There are individuals in whom it is not necessary to restrict

the salt intake. Digitalization alone will accomplish all the results in some. There are some in whom digitalis together with mercurials will effect all of the desired results without the troublesome salt restriction. There are still others in whom, after all of this is done, there is no clearing of the edema unless salt is greatly restricted.

Now a few words more about the organic mercurials. There are two outstanding defects in the prevailing use of the organic mercurials. One is that they are reserved for special cases, cases which manifest themselves in a pitting edema of the legs, enlargement of the liver, rales of the lungs, or ascites. These are the usual type of edema. It is often difficult to secure the use of organic mercurials when patients fail to show one or another of these signs.

The second defect is that the system fails to provide adequately for maintenance of the effect of the diuretic.

We are much further ahead in digitalis therapy. Around the turn of the century digitalis was also badly used. The patient was digitalized, the failure subsided, and then he was allowed to carry on without drug until enough distress accumulated to warrant another course. This system has been abandoned for digitalis, but it is still in vogue for the mercurial diuretics. The patient receives the diuretic to clear the edema, and then is allowed to carry on without it until fluid again accumulates.

How often should the dose be repeated? How often may it be repeated? We secure part of our information from the speed of excretion of the organic mercurials. If the dose is excreted completely in less than twenty-four hours, it may be repeated every twenty-four hours. It is often not necessary to give a dose as frequently as that, but it may be so given. By the method of trial and error, one decides in any given case whether the dose should be given once a day, once every other day, once every third or fourth day, or once a week.

The best guide to the proper interval is the body weight of the patient. The daily weight is probably a better indication than the more troublesome fluid intake and output measurements. The interval should be such as to maintain the weight at the low resistant level to which the early doses reduced it. Other symptoms are also useful as guides.

With respect to the group of cases for which the mercurials are reserved, I said that most physicians hold off giving organic mercurials by reason of the fact that they wait for an enlarged liver, edema of the legs, or rales in the lungs. There is a very large group of patients with failure of the left side of the heart who have

# Therapeutics

# CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the March 1 issue and will concern "Basic Principles in the Use of Drugs for the Local Treatment of Diseases of the Skin."

# Treatment of Edema by Drugs

Dr. McKeen Cattell: During the hour we plan to continue the discussion of water balance which we began last time, with special reference to the drug treatment of edema. The discussion will be opened by Dr. Gold.

Dr. Harry Gold: Last time Dr. Barr presented an account of factors responsible for the maintenance of normal distribution of water in the body, more particularly the better-known factors, such as the gradient of hydrostatic pressure in the capillaries from the arterial to the venous side, the osmotic pressure of proteins, and the distribution of electrolytes on the two sides of the cell membrane. By way of illustration with the case of heart failure, he pointed out that several factors might participate at one time in upsetting the balance and leading to edema, or the reverse—abolishing edema.

From the discussion that followed I think it must have become pretty clear that one can ask many questions about the mechanism of edema which cannot be answered satisfactorily, and yet there are several well-known facts, chemical and physiologic, concerning the mechanism of edema which serve to provide a sound base for the measures which are used in its treatment.

I might add at this point that there are very few therapeutic fields in which the rewards are so high as in the treatment of edema if the correct measures are applied in the correct way.

I find it very helpful in my own thinking to start with the proposition that e ema is not simply an accumulation of water in the body, but the accumulation of a solution of salt. Edema fluid is an increased amount of extracellular fluid, and extracellular fluid is not only water but a solution of salts—about a 1 per cent solution of salt. Every 100 cc. contains nearly a gram of salts, composed chiefly of sodium chloride and to some extent of sodium bicarbonate. It is an alkaline solution with a pH of about 7.4.

This view of edema fluid is fundamental to the interpretation of the measures that are employed for reducing or abolishing edema.

The composition of this fluid is fairly constant

and we cannot increase it or diminish it except by breaking down the balance by which its composition is maintained.

In the treatment of any case of edema there are at least six factors which come to mind at once. There are others, perhaps, but these are the important ones: (1) water; (2) salt; (3) acids; (4) measures for the diminution of the hydrostatic pressure; (5) digitalis, if it happens to be a case of heart failure; and (6) organic mercurials.

The prevailing practice with respect to water in the treatment of edema is to restrict water intake. There must be relatively few patients who are treated for edema at the present time without restriction of water, and this in spite of the fact that the best evidence indicates that there is no primary trouble in the excretion of water in most patients with edema. The patient with heart failure or with nephritis seems to retain a high capacity to excrete water, and it does not seem to matter whether he takes in 800 cc. or 3,000 or 4,000 cc. of water. He excretes it all, provided certain other conditions are met. There is fairly satisfactory evidence that the administration of water, plain water, to a patient with edema may not only fail to increase the edema, but that if enough water is given, the edema may diminish. That may well be due to the fact that when a patient drinks water he passes urine, and the urine is a solution of salts, and the less salt remaining in the extracellular spaces the less water is held.

The best evidence indicates that water restriction in the patient with edema is not necessary, provided other essential factors receive appropriate attention.

What are the other factors? If one gives a normal individual a liter of water he excretes it all in the urine within four or five hours. If one gives the subject a liter of salt water, twenty-four to forty-eight hours will elapse before he excretes it all. So then the determining factor in the retention of water in the body is the salt. Water restriction, therefore, is not necessary

until the edema all goes. After these measures there is little that can be accomplished by adding ammonium chloride or the xanthines in the vast majority of cases. There are occasional cases in which ammonium chloride may be tried if the effect by the mercurial alone is incomplete.

Dr. Modell has showed that after the organic mercurials, ammonium chloride may make about a 15 per cent contribution to the diuretic effect. In the large majority of cases it is unnecessary. The system I suggest has the merit of simplification of therapy with the most effective agent used first, and usually alone.

Dr. EUGENE F. DuBois: May I ask, are there any serious disadvantages in making a patient lose the edema too fast by too much diuresis?

Dr. Gold: Yes, indeed! Excessive diuresis causes many symptoms. The patient may vomit. He develops intense weakness and prostration, with soreness and cramps of the muscles. He is often quite sick. These patients behave very much as those with socalled water intoxication, probably owing to the excessive loss of salt in proportion to the loss of water. I think it is a good plan to adjust dosage so as to avoid securing more than about 2 extra liters of urine per day in an edematous patient. Perhaps we could put it better this way: Avoid the loss of more than about 3 to 4 pounds per day. With the loss of more than that the incidence of disagreeable symptoms rises sharply.

Dr. David P. Barr: In listing the dangers of rapid diuresis, should it also be mentioned that the sudden loss of edema fluid in cases of nitrogen retention may lead to uremia?

Dr. Gold: Yes, indeed, I think that is an important point.

Dr. Ephram Shorn: That calls attention to a numerically small group, but one that is difficult to deal with therapeutically. I refer to patients with edema associated with Bright's disease. In these, oliguria occurs in association with low carbon dioxide combining power. It is often necessary to raise the carbon dioxide combining power by giving sodium lactate or sodium bicarbonate before diuresis is possible. An excellent diuresis can be achieved by just that one measure alone. Conversely, those patients should under no circumstances receive acids.

Dr. DuBois: I remember also that some of our patients complained bitterly that they could not get any sleep at night. They were too busy passing urine.

Dr. Gold: I think that is a practical and important matter. One ought to give the or-

ganic mercurials in the morning and not at night. The patient then gets through with most of the business before bedtime.

Dr. CATTELL: Perhaps we might now hear from Dr. Modell.

Dr. Walter Modell: In evaluating the difficulties which have arisen following the administration of the mercurial diuretics, the large number of patients and the type of patients receiving these drugs should be considered. Not only is the use of these drugs very extensive, but many of the patients who receive them get them repeatedly, and by now there is a rather large group which have received well over 500 injections. In addition, as Dr. Gold has pointed out, it is the practice of many physicians to give mercurials only to those patients who are urgently ill; the type of patient in whom sudden death is not an uncommon occurrence.

The toxic symptoms which follow the use of mercurials may be divided into three categories. I give them in the order of increasing importance. First, the symptoms of mercurialism; second, the immediate symptoms due to idiosyncrasy; and third, the delayed symptoms due to salt loss.

The symptoms of mercurialism include stomatitis, colitis, renal damage—findings which are usually associated with the administration of ionic mercury. In the diuretics, mercury is in a nonionized organic form, is rapidly excreted, a large part of it within six hours, and practically all of it within twenty-four hours.

The recorded number of authenticated cases of mercurialism following the use of the organic mercurial diuretics is very small indeed. But because of the possible danger of renal damage a special note of warning is usually sounded concerning their use in patients with renal disease. However, it is a practice with many clinicians merely to use these drugs with greater caution in patients with renal disease. It is difficult to avoid their use entirely in patients with renal damage, since renal damage is a common finding in many chronic cardiacs, especially those with arteriosclerosis.

Immediate symptoms following the mercurials which may be ascribed to idiosyncrasy or hypersensitivity include dizziness, weakness, substernal oppression, dyspnea, collapse, change in cardiac rhythm, and death.

Until relatively recently it was said that there had been no death immediately following the intravenous administration of mercupurin to cardiacs. The fact that a handful of such deaths have since been reported serves to emphasize that these occurrences are relatively rare, and also to indicate that such things may occur.

neither edema of the legs, enlargement of the liver, nor rales, but they have edema of the lungs which may give no rales. These patients are short of breath. They may be subject to paroxysms of nocturnal dyspnea. They may be able to do a day's work but from time to time develop an attack of pulmonary edema. They have an elevated circulation time of the lungs, an elevated venous pressure in the pulmonary circulation. They are patients with failure of the left side of the heart. This group of individuals obtains very little help from digitalis. In this group, the organic mercurials, if used by a system involving first the production of the full effects and then the maintenance of these effects by appropriate doses at appropriate intervals, produce results which in every way equal the striking and dramatic results of digitalis in the classical case of early heart failure with auricular fibrillation.

The point I want to emphasize again is this: There is a large field for the use of the organic mercurials in the treatment of a group of patients commonly overlooked, in whom there is failure with congestion but who do not show the classical signs which we ordinarily associate with congestion: edema, rales, liver enlargement, and swelling of the legs.

DR. CATTELL: I want to call on Dr. Modell in a moment, but perhaps we might first see whether there is any disagreement with what Dr. Gold has told us.

Dr. C. H. Wheeler: I should like to challenge Dr. Gold on the omission of two things from his list, and the first of those would be protein, because it is my impression that there is a group of patients who have edema in association with or because of hypoproteinemia, in whom all other measures may be completely ineffective until proteins are restored to normal. In other words, there are patients in whom repeated plasma infusion may produce a much more dramatic diuresis than any of the measures which Dr. Gold has emphasized.

Second, I wonder why you have omitted the caffeine-theophylline-theobromine group of diuretics from your list, because it is my impression that they may be very useful. I am sure we have many patients on the ward who have been digitalized and brought to a basal level, so to speak, who continue to show diuresis when given theocalcin in daily doses.

DR. Gold: The first measure—the use of protein—I omitted by reason of the fact that I was listing only the measures which apply to the vast majority of cases. There is no doubt of the importance of protein. However, one does not very often encounter a patient with edema n whom the administration of protein is a solu-

tion to the problem. There are, of course, some such cases. There are other relatively rare ones; for example, the wet beriberi, treated with thiamine.

The other omission, the xanthines, is made purely with malice aforethought. I wanted to emphasize the surpassing importance of the organic mercurials as diuretics by mentioning only them, and to emphasize the relative lack of importance of the other diuretics by omitting all mention of them. The mercurial diuretics give us trouble. They have to be injected usually. If some of the solution spills into the perivenous tissues a painful nodule forms and phlebitis may result. For these and other reasons we tend to drift toward other oral diuretics. It is mighty uncommon in my experience, however, that one is able to carry a patient along satisfactorily by means of any one of the xanthines orally. I refer now to patients who have recurring edema and in whom we have proved continued dependence on a diuretic action.

When I give the xanthines in such doses as patients can tolerate they rarely show more than a slight effect on the edema. As soon as the doses are raised sufficiently to give effective diuresis, after four or five days, they develop so much trouble in the form of vomiting, cramps, diarrhea, and nervousness as to make it impossible to continue. This applies to the whole group of the xanthines. As for the acid-forming diuretics, they also are not very effective. They produce some loss of edema, but as soon as the doses are increased to 8 or 10 Gm. a day, where their efficiency is fairly high, they begin to behave like saline laxatives.

DR. WHEELER: It is not my thought that the xanthines and ammonium chloride should ever be used instead of the mercurials, but that they may often be used in addition to the mercurials. In other words, a patient may get rid of his edema faster if he is subjected to salt deprivation, the administration of ammonium chloride, the daily administration of theocalcin, and the administration, say, of mercupurin every third or fourth day. On such a regimen he will lose edema somewhat faster than with the mercurial alone. Would you take issue with that?

DR. Gold: I would take issue with that as a routine. In a patient with heart failure, my own way is as follows: let him have all the water he wants to drink. Tell him to put no salt in his food. That is one way of securing moderate salt restriction since there is still some salt in his food although he adds none. Digitalize him fully. If all the edema does not disappear, then begin the use of the organic mercurial. Adjust the dosage and frequency of repetition

four hours suffice for the elimination of an average dose of 1 cc. of mercupurin?

Dr. Modell: There are some data indicating that twenty-four hours suffice in normal men and animals, but I am not sure of the proof for the statement that in the presence of oliguria a longer time may be required.

DR. Gold: I don't believe there is any satisfactory indication that cumulation of the mercurial occurs with a daily dose of mercupurin if a reasonable urine output is maintained, such as 1,000 cc. a day.

DR. Modell: Dr. Gold, if a patient with edema who has a fair urine output shows no increase of urine after the mercurial, would you be concerned about the possibility of retarded elimination of mercupurin?

Dr. Gold: I think it does not take much urine to excrete a dose of organic mercurial. If the patient is not passing any urine that is another matter. If there is anywhere near a normal urine excretion, even though no diuresis results from use of the drug, there is virtually no danger of accumulation of the organic mercurials with the usual plans of administration. There is much too much fear about the possibility of such danger, as the result of which the drug is withheld when patients are badly in need of it.

Dr. Robert F. Pitts: Your emphasis, Dr. Gold, seems to be a primary attack on salt excretion. Do you think that an attack on water excretion carried out simultaneously might possibly reduce some of the disagreeable symptoms which are described for excessive salt loss? In other words, combine some osmotic variety of diuretic substance to pull out water at the same time that you get the water out indirectly by salt loss?

Dr. Gold: You mean that one should avoid the disproportion between salt and water which gives rise to the disagreeable symptoms? That sounds like a good idea, and it might conceivably be done by simultaneous use of urea or glucose.

Dr. Wheeler: Dr. Gold, I should like to nag you a little more about these other substances. I want again to refer to the point that there are patients who for one reason or another find it difficult to see the doctor every day or every second or third day for a mercurial injection, and I wonder if you would not admit that the xanthines might be useful in those cases. Then I want also to ask you about urea. Some of us around the hospital have felt that in the past urea has often served as a useful diuretic. The chief objection to urea on the part of the patient is the awful taste.

Dr. Gold: Dr. Wheeler, I could not very

well grant your point about the xanthines without spoiling my thesis. I would say this: if the
daily injection becomes a difficult problem, one
can do better than use the xanthines. Try
out the rectal suppository of salyrgan with
theophylline or the mercurin suppository. There
are more individuals whose rectum will tolerate
these for some time than there are whose stomachs will tolerate effective doses of the xanthines.
I shared the view which you hold about the
xanthines once upon a time. I have abandoned it.

Dr. Modell: Dr. Gold, do you think we might mention the salyrgan with theophylline tablet which is now on the market? In my experience one case in twenty tolerates an effective daily dose. If the dose is large enough it is diuretic.

Dr. CATTELL: Dr. Shorr, I think you had a question.

Dr. Shorn: Is there any validity in the use of potassium chloride as a salting agent for patients who are on sodium restriction?

Dr. Gold: Yes, potassium chloride, while not possessing quite the savor of sodium chloride, is nevertheless welcome to the patient on salt restriction. It makes the food more palatable.

Potassium chloride is itself a diuretic and there are some studies showing that very effective diuresis can be produced by 5 or 10 Gm. of potassium chloride given daily to certain patients with edema, particularly in nephritis with edema. The mechanism of potassium chloride diuresis is not entirely clear. When one gives potassium salts, one factor may well be that the kidney, being partially blind to the difference between potassium and sodium, excretes base, and in that way takes out a large amount of sodium. The loss of sodium, of course, leads to the mobilization of water from the extracellular spaces.

Dr. Shorr: It is my impression that in Bright's disease with insufficiency the potassium content of the blood is likely to be lowered.

Dr. DvBors: I should like to ask Dr. Gold about the diuretic effect of rest in bed.

Dr. Gold: The diuretic effect of rest in bed is very considerable. There are many patients with heart failure and edema who as a result of rest in bed alone develop active diuresis, and the edema disappears. Complete disappearance of the edema from rest in bed alone is not the rule, but a high degree of improvement is. The more advanced the failure, the less complete is the improvement from rest in bed alone. The response to rest in bed provides information of prognostic importance.

Dr. CATTELL: It would be interesting to have a brief statement from Dr. Modell regard-

It is important to note that sensitivity to the mercurials may apparently develop after many injections and without previous warning. One patient who died received some forty injections of mercurial diuretics without symptoms prior to the last one. However, in three of four cases there was a warning. In one there was transient heart block; in another, substernal oppression; in another, the patient complained of a "very peculiar feeling" after his injections.

We have under observation now a man who about a year ago, after receiving some twenty or thirty weekly injections of mercupurin, suffered marked dizziness and weakness after 2 cc. administered intravenously. mercupurin Spontaneous recovery occurred in an hour. The following week the patient was given half the dose, 1 cc. A similar episode of less severity followed. Since that time he has received over fifty weekly injections of salyrgan-theophylline without reaction. In instances in which symptoms of idiosyncrasy or sensitivity have appeared it may be possible, therefore, to avoid repetition by the use of another mercurial diuretic.

The most frequent symptoms are those which appear the day after the injection. They are due to the diuresis which is produced by the mercurials and are most pronounced after massive diuresis. The large amount of urine, as Dr. Gold explained, which flows out of the body as a result of the mercurials washes away with it a considerable amount of chlorides and other electrolytes. Such patients usually suffer from electrolyte imbalance and symptoms similar to heat cramps may develop. These symptoms may be prevented and relieved by the use of ammonium chloride.

Redigitalization also has been advanced as a possible source of difficulty after massive diuresis. It has been explained that the mobilization of edema fluid may liberate at the same time digitalis bodies which have been stored in it. Although attention has been directed to this phenomenon for many years, proven cases are difficult to find in the literature. I mention it here merely for the sake of completeness.

DR. CATTELL: Are there further questions or discussion?

INTERN: The statement is sometimes made that following an injection of mercupurin there is a very rapid hemodilution with increase in circulating blood volume. I wonder what data we might have on that subject, because this has often given pause in treating a patient with coronary occlusion.

Dr. Gold: That question has been debated and I would say that the opposing reports on

the subject are about equally balanced at the present time.

The story started with the notion that the organic mercurials exerted an extrarenal action. What they did first was to liberate water and dilute the blood. This motivated the diuretic cycle. After a few years workers began to fail to find hemodilution. It seems probable that if there is a hemodilution it is very small, and should prove no bar to the use of the mercurial in coronary occlusion.

DR. DuBois: Not so very long ago, when I was an intern, there were various methods of treating edema in one of the best hospitals in this city, and if I remember rightly they occasionally put plasters of belladonna or plasters containing digitalis over the kidneys. They exposed the patients to hot air in bed tents and used wet packs. Then there was the method of extreme catharsis.

It might be interesting to review the manner in which these therapeutic measures were finally disposed of. I think some of them are still used.

DR. Gold: I should not be surprised if all of these measures promoted sweating of either the whole man or a part of him. That might increase the salt loss and anything which increases the salt loss tends to decrease edema. They must have been quite ineffectual, however, by comparison with the heavy artillery which we now employ.

Beyond doubt, the saline cathartics have value. The saline cathartics act chiefly by holding fluid in the intestine. The patient takes a small dose of a saline cathartic and then passes the equivalent of a quart enema. He loses water and probably salt as well. But again, I think that by comparison with what we use today, these measures must have proved very feeble. Dr. DuBois, you would know better than I how effectual they

Dr. DuBors: As interns we were impressed chiefly by the fact that the edema did not disappear, but also that the patient was made extremely uncomfortable. When a patient with heart disease and nephritis was put in a hot pack and left there for several hours he was most uncomfortable, as a normal man would be.

Those who were subjected to vigorous catharsis had to spend a considerable amount of energy on the bed pan.

I think it was Dr. Henry Christian, was it not, who pointed out the advantages to the neighbors if the kidneys were used instead of the bowels? He has some classical quotations on that.

Dr. Shorn: Is the elimination of mercurials impaired in renal insufficiency? Does twenty-

special problems which may require particular measures, such as rest in bed as a means of reducing hydrostatic pressure, thiamine in the edema of beriberi, and high protein intake for the edema of nutritional origin.

Edema fluid is not only water but a solution of salts of which sodium chloride is the most abundant. Patients excrete water very quickly, but if the water is given with salt it is retained for a long time and deposited in the tissues in the form of edema. Water restriction is widely practiced. It seems to be unnecessary. What is necessary is salt restriction. If that is done, the patient may take as much water as he desires. Some cases of edema require only one of the measures listed above; other cases require all of them.

Saline cathartics and vigorous sweating have been used in the past for the purpose of reducing edema but they are not sufficiently effective to play any part in the modern treatment. The xanthines, such as theocalcin and theophylline, received some defense as useful diuretic agents, but the view was also expressed that it is so rare to find patients who can take large enough doses without gastrointestinal symptoms that it is better to apply the mercurial diuretics from the beginning rather than the oral diuretics which, in the experience of some, do not give sufficiently consistent results to warrant their trial in the average case. The details of the use of mercupurin or salyrgan with theophylline were discussed. Smaller doses (1 cc.) at more frequent intervals are more effective than larger doses (2 cc.) at less frequent intervals. They may be given daily without danger. There have been some deaths from the mercurials, but on the whole their danger is small when one considers their extensive use. Excessive diuresis is to be avoided because it is likely to produce nausea, vomiting, prostration and muscular cramps. These may be controlled by the use of smaller doses of the organic mercurials. Ammonium chloride in doses of about 4 to 8 Gm. daily enhances the effectiveness of the mercurial diuretics by an average of about 15 per cent, but most cases do sufficiently well without it. The mechanism of the action of the organic mercurials was discussed. There seems to be no contraindication to their use, and the danger of poisoning, even in renal disease, is negligible if a fair urine output is present. The weight of the patient is a useful guide in the treatment with the organic mercurials and one of the plans suggested was to give the mercurial at frequent intervals, even daily, until the weight declines to a resistant level at which it may be maintained by doses at longer intervals. In cases in which injections are not feasible, an attempt should be made to control the condition with the rectal suppository or the oral tablet of the diuretic.

The mercurial diuretics are frequently reserved for patients with frank signs of edema such as rales, swelling of the legs, or ascites. Attention was called to the large field of usefulness of these diuretics in failure of the left side of the heart, in which none of these signs may be present, but in which the patient is subject to attacks of pulmonary edema and paroxysms of dyspnea. In these the appropriate use of the organic mercurials produces therapeutic results which are unobtainable with any other measures.

## IT IS NO DISGRACE TO BE SOMEWHAT NEUROTIC

"It is good to be somewhat neurotic," declares Dr. Walter C. Alvarez, of the Mayo Clinic, in his new book, Nervousness, Indigestion and Pain (Hoeber).

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This should cheer up many a person who, besides his or her other sufferings, has to bear the feeling of blame or disgrace that is too often associated with the word "neurotic." Actually, the term can be taken as a compliment, Dr. Alvarez tells his patients.

"If a woman is to have any vivacity and social charm she must be nervous and highly sensitive," he declares. "Without these qualities she cannot be wide-awake and responsive and interested in people and in everything that is going on about her; without it her face will not be mobile and attractive, her eyes will not light up, and her conversation will not be animated. But it is just this ability to feel keenly and to react strongly that commonly brings in its train fatigue and suffering."

The nervous makeup that can make a person feel "in the seventh heaven" while hearing a symphony, or weep at a sad play, also can make a person feel great distress or even pain after a hearty meal which would give a less nervous person a comfortable feeling of having his stomach well filled.

Although Dr. Alvarez has written this book for physicians, especially those just starting to practice medicine, there is much in it that will help the intelligent person whose nerves often make him sick and weary. One of the important points which neurotic patients may learn from the book is to recognize what they are really like.

Dr. Alvarez has pointed out that half the battle for relief from suffering and undue fatigue may be won if the patient can stop worrying because his sensitive nerves make him feel unpleasant things and minor annoyances just as keenly as he feels the beauty of music or delight and joy in pleasant sen-

sations .- Science News Letter

ing the optimal doses of mercurial diuretics, a problem which he has investigated.

Dr. Modell: We compared different doses in the same patient. We found that while a large dose gave a larger total diuresis, a small dose gave more diuresis per cc. of the drug than a larger dose. Also, two small doses gave more diuresis than one large dose. Patients were much happier when given 1 cc. of mercupurin, say on Wednesday and Saturday, than 2 cc. one day a week. They did not accumulate so much edema in the case of the two smaller They did not suffer as much from dyspnea and sleeplessness. Nor did they suffer as much from cramps and other effects seen in the case of massive diuresis. All the results point to the advantage of smaller doses repeated at short intervals over larger doses once a week. It is important to try to maintain a daily water balance instead of a weekly one.

Dr. Cattell: Are there further questions? Dr. Walsh McDermott: I should like to add that the emphasis which has been put on the use of the organic mercurials in the absence of dropsy is in line with what we have been teaching. Medical students don't seem to grasp it for some reason. I am glad to see the idea re-emphasized at this conference.

There is one group of patients who have paroxysmal nocturnal dyspnea who cannot be treated daily. Incredible as it may seem, many of them are working, and an oral diuretic which would reinforce the action of the intravenous mercupurin is essential in that group of patients, but not in the dropsical ones.

Dr. Gold: I should certainly agree to that. An oral diuretic which would reinforce the parenteral one would certanly be valuable.

DR. SHORR: Do you use ammonium chloride?
DR. GOLD: Yes, we use ammonium chloride.
It adds something to the efficacy of the organic mercurial. Its contribution to the diuretic result is, however, relatively small. It does not fully meet the need for an oral diuretic.

As for the xanthines, we have given them in a routine fashion to patients with edema, but on examination of our experiences, we have come to doubt whether they are worth the trouble.

Dr. McDermott: We have used them very little.

DR. GOLD: I am in full accord with the view that an oral effective diuretic is desirable. My point is, however, that little dependence can be placed on those that we have.

DR. WHEELER: We have had just the opposite experience, Dr. Gold, because we have had patients who have been in the hospital for a month or six weeks and were thoroughly digitalized. After they seemed to have reached a state

where nothing further could be expected from bed rest and other measures, they were given theocalcin, a gram four times a day. This would carry them along over a period of several weeks without the toxic effects you describe, and would produce an increase of urine volume, from 600 to 700 cc. to 1,000 and sometimes even 1,500 cc. a day, so that we were convinced that some of these substances were useful.

Dr. Gold: The xanthines are diuretic agents. There is no doubt of that. Some years ago Dr. Goldring published a study from Bellevue Hospital in which he showed in well-controlled experiments that large doses of xanthines daily produce good diuresis in bed patients with heart failure.

The large doses which are necessary for such effects cannot be continued for any length of time. The ambulant patient who is seriously ill and likely to go downhill rapidly if active diuresis is not maintained cannot in our experience be carried along satisfactorily with the xanthines.

We have a fairly large group of such patients in our clinics and matters went very badly until a system was worked out by which they were able to secure injections of the organic mercurials. The xanthines do such a questionable job that in an account of effective diuretics I believe that it is justifiable to emphasize their relative ineffectiveness by omitting them from consideration. In such cases as the type you cited, Dr. Wheeler, I wonder whether you could be certain that they would not get on equally well without the theocalcin. I might add that I have little doubt that an occasional patient might be encountered who is very sensitive to the diuretic action of the xanthines and may be benefited by them. My own experience indicates that these cases must be rare.

The prevailing practice seems to be to try one of the xanthines or other oral diuretic first and to struggle along with them for a long time. In the case of patients who are badly in need of active diuresis we practically always in the end fall back on the drugs which really help, namely, the organic mercurials. That being the case, I should like to urge their use in the beginning.

## Summary

Dr. Gold: We may now summarize briefly the chief points of this discussion on the drug therapy of edema.

Great progress has been made in this field of treatment. Physiologic objectives have been more clearly defined. There are at least five important measures which require consideration in every case of edema: water, salt, acids, digitalis, and diuretics. There are, in addition,

League of Red Cross Societies, the International Committee for Intellectual Cooperation, and the

European Rotary.

The I.U.S. will carry out a work of true and active fraternity, a work of peace. It is a symbol of the new age which the whole world awaits and desires. It is a realization of those values which men need now more than ever, and of the spirit in which Switzerland wishes to live in the midst of

The I.U.S. is under the patronage of the Swiss Government, which made a grant of half a million Swiss francs toward the foundation of the Sanatorium and itself introduced the project to all other governments for their collaboration.

The creation of the I.U.S. is being made possible by the subscription of "founder's shares" at 25,000 Swiss francs each. These entitle their subscribers to permanent ownership of one of the beds and to membership in the governing body. Governments, universities and colleges, student organizations, towns and cities, industrial concerns, philanthropic institutions, and private individuals are invited to communicate the number of shares they wish to reserve for themselves. The smallest gifts are accepted with very sincere gratitude.

The governments of Belgium and Luxembourg have already joined Switzerland in the work of bringing the International University Sanatorium into existence. The first six non-Swiss beds were subscribed for in these two countries.

The building of the sanatorium will begin as soon as a hundred beds have been bought. Up to the present forty beds have been taken, two of them by Egypt in time of war.

### A.M.A. SAYS USE OF MINERAL OIL IN FOOD MAY BE HARMFUL

On the basis of medical reports showing the harmful effects that may result from the ingestion of mineral oil (liquid petrolatum), "there can be no justification for the incorporation of liquid petrolatum in foods," the Council on Foods and Nutrition of the American Medical Association declares in a report in the December 11, 1943, issue of the Journal

of the Association.
"It has been shown," the report continues, "that the ingestion of liquid petrolatum is capable of interfering seriously with the absorption of carotene, and vitamin K. vitamin D, calcium and phosphorus, and vitamin K. The effects of its prolonged use have not been thoroughly investigated, but there is sufficient evidence of possible harmful effects to justify the con-clusion that its indiscriminate use in foods or in cooking is not in the interests of good nutrition and any such use should be under careful supervision of

a physician.
"The Council previously has accepted, with a special requirement that the products be promoted for use only under the direction of a physician, salad dressing or imitation mayonnaise containing mineral oil, for use in therapeutic diets. In view of the abuses which have developed through the production and sale of food products containing mineral oil to the public, the impracticability of providing suitable and adequate warning of the possible harmfulness of such preparations, and the fact that physicians wishing patients to use such products readily can supply directions for their preparation on a small scale from liquid patrollature and other on a small scale from liquid petrolatum and other ingredients, the Council has voted, on the basis of evidence reviewed in the present report, to withdraw its acceptance of these products."

The Council points out that there are conflicting the Council points out that there are communing views regarding the effect of mineral oil per se on the alimentary tract. Many physicians consider mineral oil preparations the laxative of choice. "It is probable," the Council says, "that under medical supervision mineral oil can be properly used, but the ease of obtaining the preparations as well. but the ease of obtaining the preparations as well as other laxative drugs readily leads to abuse. Proctologists have experienced difficulty in visualizing the second of ing the wall of the rectum because of an adhering film of oil in persons who take liquid petrolatum. The seepage of mineral oil is well known to be one of the discomforts that may attend the use of this

substance. "J. W. Morgan has written forcefully about the need of caution in the use of liquid petrolatum. He has mentioned a syndrome to which he has ascribed the term 'mineral oil poisoning' which may result from the continual oral administration of liquid petrolatum and which is relieved by discontinuance of the oil together with supportive measures to overcome the weakness which accompanies this syndrome. The most frequent signs and symptoms are anorexia, indigestion, flatulence, fatigue, nervousness, dyschesia, and anal leakage, accom-

panied in many cases by considerable loss of weight."

Commenting on the Council's report, the Journal

says:
"Basically, salad dressings made with mineral oil cannot be differentiated, except in a laboratory, from ordinary products containing true fats or oils like olive oil. Such products are frequently bought in large amounts by hotels and restaurants. The person who receives a salad on which such a dressing has been placed has no idea as to the nature of the material that is being used. Mineral oil is plentiful: it can be purchased without ration points and can be sold much more cheaply than can olive oil or other vegetable oils. . . . . Sometimes such products are vegetable oils.... Sometimes such products are sold in one to five gallon containers purchased largely by hotels and restaurants, since householders do not use such quantities. There are, for instance, a product called Thallon-Naise made in New York, a mayonnaise packed for H. L. Barker, Inc., New York, a mineral oil dressing made by J. H. Filbert, Inc., Baltimore, a product called Slenderit manufactured by Marquis Products Company of Portland, Orc., and Beck's Pure U. S. P. Mineral Oil furnished by Beck's Mayonnaise Products of Davenport, Iowa, as well as others. Mineral oil is used in the baking industry in the place of animal and vege-

"Certainly the consumer should have the right to know the nature of the substance that he is using and the possible harmful effects associated with the substitution of liquid petrolatum for what he con-

siders to be a food."

# Special Article

## THE SWISS UNIVERSITY SANATORIUM AT LEYSIN, AND THE PROJECT OF THE INTERNATIONAL UNIVERSITY SANATORIUM AT LEYSIN\*

THE Swiss University Sanatorium aims at cur-L ing professors, tutors, lecturers, and male and female university students who are attacked by tuberculosis in a curable form or who have a predisposition to this disease. Professors and students of foreign universities are cordially welcomed when there is room available.

This institution was founded by the Swiss universities and the Federal School of Technology, and owes its existence to the years of effort and original initiative of its director, Dr. Louis C. Vauthier. It is situated at Leysin in the Vaudois Alps, one of the best of the Swiss climatic resorts (4,500 and 5,000 feet above sea level), and commands a magnificent panoramic view. It is provided with all modern scientific equipment and has forty single bedrooms. It was opened on October 1, 1922.

The University Sanatorium is a work of corporative solidarity. Professors and students of the Swiss universities have made an annual contribution of 20 and 10 francs, respectively, since its foundation, and this permits of a reduction in the daily fee for patients.

By grouping together students whose occupations and preoccupations are of a similar character, the University Sanatorium provides an environment with a very considerable influence for the good, both intellectually and morally.

The influence of intellectual work on the progress of patients who must undergo a cure of such long duration manifests itself very clearly, and its action is felt in all departments of their lives. In no case has quiet and regular work at fixed hours been found harmful. On the contrary, it has always been a powerful agent for good, at the same time a sedative and a tonic. It has given them a healthier and more balanced outlook, and preserved them from demoralization and neurasthenia. An optimism which takes possession of the whole being and acts upon its multiple functions has proved to be the essential result of the curative force emanating from mental activity.

The University Sanatorium furnishes its patients, as far as possible, with the means of continuing their work and their studies: chosen from their own teachers, who remain in

\* A release from the Official Information Bureau of Switzerland, 475 Fifth Avenue, New York City, F. Dossenbach, Director.

contact with them by letter and who come to see them; a library of 14,000 volumes; more than 150 journals and reviews in several languages; visits from and regular conferences with professors of all faculties, with writers and others. Together with intellectual work, music plays a very important part in the life of the Sanatorium. Famous artists constantly come of their own free will to delight the patients with a display of their art. Nor are moments of relaxation and entertainment lacking. The very character of the home is one of gaiety.

The establishment has its own lantern slides and films. A radio with headphone equipment is installed at every bedside and microphones allow the patients to hear concerts and conferences given in other parts of the house. It is also provided with a very well-equipped darkroom, a herbarium, collections of microscopic preparations and products of Helvetic pharmacopeia, and with mechanics' and carpenters' workshops.

Since the foundation of the University Sanatorium, 650 professors and students from 42 different countries have come to regain their health here. More than 1,000 scholars, writers, and artists, Swiss and foreign, have helped to enrich the Sanatorium's activities with knowledge and aid. One hundred and fifteen theses have been written, 425 examinations prepared and, very often, brilliantly passed during or immediately after the cure. A large number of patients have learned foreign languages during their stay, and all have profited by the general culture which permeates these surroundings and this life.

The Swiss University Sanatorium is the prototype and a partial realization of the International University Sanatorium at Leysin which Dr. Louis C. Vauthier, the initiator of the project, and an organizing committee (President, Professor A. Rohn, Chairman of the Governors of the Federal School of Technology in Zurich) are now bringing to completion in spite of the war. It is proposed to establish a sanatorium of 208 beds, which will also provide numerous university and social conveniences.

The International University Sanatorium is a work of pure idealism, and no personal, financial, national, or denominational interests whatever are involved. The project has the support of the great international student organizations, the International Union against Tuberculosis, the

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may feel unloved or unwanted, and react with delinquent behavior. Children may feel discriminated against; they may feel jealous of their brothers and sisters. Parents often unwisely had a "favorite" child and compared the good traits of this model child with the bad faults of the other children in the home. Children may feel ridiculed by their parents or other relatives because of their difficulties in school or because of physical handicaps, and may resort to delinquent conduct. On the other hand, parents may fail to understand and appreciate their responsibilities to children and may allow them to be completely undisciplined in the school, home, and community. Poverty, poor housing, and unsanitary living conditions also contribute to delinquency. One of the chief sources of delinquency is the lack of supervised wholesome recreational outlets for children and adoles-

It has been shown repeatedly that there are certain parts of big cities from which the majority of delinquents come. In these areas there are few or no playgrounds or parks, and children must spend their leisure time in streets and alleys and they often associate with playmates with criminal family backgrounds.

Even in peacetime the community facilities available for children were inadequate in many sections of the country. Now, because of the war, these resources are more limited. There is insufficient personnel for many of the playgrounds and recreational centers. Schools are understaffed. The Children's Bureau in Washington reports that in the boom towns schools are unable to handle the increased enrollment, and in many states teachers are not available for many classrooms. In certain communities, due to budgetary consideration, there has been a decrease or cessation of recreational facilities and other socially preventative measures available for children,

Because of the war situation, many homes have already been disrupted, with one or both parents in the armed forces or in defense plants away from home, so that normal parental supervision is lacking, and the children, left unsupervised, fall in with older delinquents and soon develop antisocial conduct. Moreover, young girls, through feelings of patriotism, will engage in sex acts with members of the armed

forces, sometimes for pay, but frequently as a patriotic gesture.

Now, what can we do to check this recent increase in delinquency, and what can be done to prevent delinquency in general? All of us can help. Those women who have growing children should remain home with them and care for them. Moreover, the parents should provide healthy recreational outlets for their children and their children's friends in their own homes or in supervised recreational centers. The agencies and institutions now caring for neglected and delinquent children should not diminish their services, but should continue to function as actively as ever. Church and school authorities should work with parents and children in pointing out the dangers of unsupervised recreations. The children and adolescents should be encouraged to aid in the war effort in various ways, in salvage drives, as air raid messengers, doing Red Cross work, and the like.

We can learn a lesson from our English allies in this regard. In 1940 and 1941 there was a marked increase in juvenile delinquency in England, due to bombing and destruction of homes, the conscription of the fathers, the evacuation of children, etc. England realized the need of youth organizations to give children and youths a wide choice of activity. They organized farm clubs and a Youth Service Corps. The functions in this latter organization range from filling sandbags to collecting music for the navy and, according to a local New York paper, include activities such as cleaning first aid posts, filling bomb craters, running messages, sewing, collecting kitchen waste for farm animals, etc.

In this country a few sporadic attempts have been made to utilize the energies and drives of these children, but much more can be done. Children and adolescents need reassurance that they "belong" and that their efforts are appreciated. If we can give them constructive organized activities which will help in the war effort, we, like England, will soon see a drop in juvenile delinquency. The core of American civilization and power has been the home and its well-knit family life. Now, more than ever we must strive to preserve the family ties and keep our homes intact. In this way we will prevent juvenile delinquency and, at the same time, preserve our American way of life.

# NEW YORK CHAPTERS OF PAN-AMERICAN M. A. TO MEET

The Annual Scientific Meeting of the Brooklyn and Long Island chapters of the Pan-American

Medical Association will be held at Brooklyn Hospital on February 25 at 9:00 p.m.

# Special Article

# PSYCHIATRIC ASPECTS OF JUVENILE DELINQUENCY

Frank J. Curran, M.D., New York City

UST what is juvenile delinquency? Is there a "crime wave" among our children and youths? Is the war producing an increase in criminality among children? These questions are troubling many of us. Articles printed in newspapers and magazines give conflicting information. In one periodical we read that juvenile delinquency has increased from 20 to 100 per cent in different sections of the United States, whereas in another article we are told that there is absolutely no cause for alarm about juvenile delinquency. Just what are the facts? What are the causes of juvenile delinquency? What can be done to prevent an increase in such delinquency? What can we, as members of the "home front," do to prevent the occurrence of delinquency in our children and in our neighbors' children?

A juvenile delinquent in New York State is a person over 7 and under 16 who commits an act or omission which, if committed by an adult, would be considered a crime or misdemeanor. Among the commonest types of juvenile delinquency are truancy, running away, stealing, disobedience, sex offenses, and destruction of property. In some states, the upper age for juveniles extends to 17, 18, or even to 21. In New York City there also exists an Adolescent Court which deals with boys between 16 and 19, and there is a corresponding Wayward Minors Court for girls. Although the adolescents sent to these two latter courts are not considered juvenile delinquents in a legal sense, yet they are often so considered from a social standpoint. Moreover, in the present war situation it is in the 16- and 17year-old group that delinquencies appear to be increasing both in number and severity.

Judge W. Bruce Cobb, Acting Presiding Justice. Domestic Relations Court, New York City, stated in a recent radio address that there was only a very moderate increase in juvenile delinquency in 1942 over 1941 and added: "In ordinary times it would have probably passed unnoticed." For the first three months of 1943, however, there has been an increase of over 30 per cent of delinquent children in the New York City Children's Courts. The largest increase

was in sexual involvement on the part of young girls. Judge Cobb further emphasizes the fact that there was no increase in the number of violent offenses. This latter observation substantiates my own observations of adolescent boys committed to Bellevue Hospital for mental observation. We have had, for example, no child under 16 in the adolescent ward in over a year who had killed another person, whereas in 1937 we had four such cases within a six months' period.

Mr. Patrick Shelly, the Chief Probation Officer of the New York City Magistrates' Courts, informs me that there was an actual decrease in the number of boys aged 16 to 19 admitted to the Adolescent Court in 1942 as compared to 1941. He believes this is due to the large number of boys aged 17 to 19 who join the Navy or Coast Guard. However, in the Wayward Minors Court between January 1 and May 24, 1942, there were 138 cases and in the same period in 1943 there were 214 cases, an increase of over 55 per cent. In 1942 the bulk of cases in the Wayward Minors Court was in the 16- and 17-yearold group. Similarly, in the Adolescent Court the largest number was in the 16- to 17-year age bracket, and there has been a tendency in this group for the crimes to increase in severity. Formerly there were many petty offenses, such as

stealing lead pipe from empty houses, whereas

now there are more burglary and grand larceny

charges. What are the causes of juvenile delinquency? From a psychiatric viewpoint we can say very definitely that psychoses or insanity and mental deficiency are responsible for only a very small percentage of Children's Court cases. Only a small portion of delinquents may be labeled as "incorrigible" or "habitual criminal" type, technically known as the C.P.I. or constitutionally psychopathic inferior group. Instead, the majority of delinquent children are delinquent because of their emotional and environmental problems. From 40 to 70 per cent of delinquents come from "broken homes" where parents are not living together or where one parent is dead or is in a mental hospital or prison. Even when both parents are in the home, there may be serious parental maladjustments. The parents may dislike each other and carry this resentment over in their attitude toward the children. Thus the children

Medicine.

Radio Talk over WNYC on June 17, 1943, sponsored by the New York County Medical Society. Senior Psychiatrist, Bellevue Hospital, and Assistant Professor of Psychiatry, New York University College of Medicine

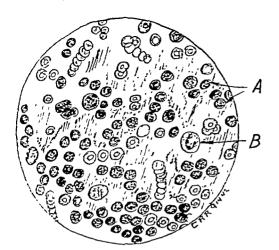


Fig. 1. Wright's Stain. A, Lymphocytes; B, Polymorphonuclear leukocytes.

The right lower extremity showed a 3 plus pitting edema from the ankle to about 4 inches below the knee; left ankle and dorsum of the left foot revealed 2 plus pitting edema. The upper extremities were normal except for epitrochlear lymphadenopathy.

Neurologic examination gave normal results. The lymphatic system superficially revealed marked lymphadenopathy in the cervical, axillary, epitrochlear, and inguinal regions bilaterally, with

no evidence of lymphadenitis.

The diagnostic impression at the time of physical examination was that we were dealing with a leukemia of the myelogenous type, because of the very great splenic enlargement and because, subsequently, it was determined that the total leukocyte count was tremendously increased to 1,272,000. That 99 per cent of these were lymphocytes was confirmed by thorough studies of peroxidase stained blood smears (Figs. 1 and 2). The following chart (Table 1) shows very clearly the results of the daily lematologic studies and constitutes the reason—the tremendous increase in leukocytes over and above the crythrocyte count—for my desire to have this case included in the literature.

TABLE 1

	5/11/42	5/12/42	5/13/42	5/15/42
Enthrocytes Leukocytes Hemoglobin,	1,250,000 1,272,000	1,150,000 1,000,000	1,050,000 1,250,000	1,200,000 1,475,000
Gm. Neutrophils, % Lymphocytes,	20 3.2 0.5	20 3.2 1.0	22 3.5 1 0	23 3 7
Basophils Ecsinophils	99.0	99.0	99.0	99.0
Monocytes, %	ó.5	• • • •		i o

The results of the blood chemistry analysis are self-explanatory and are listed below:

Blood Chemistry, May 12, 1942 Sugar—68 mg. per cent Urea nitrogen—8.1 mg. per cent Uric acid—5.7 mg. per cent Cholesterol—176 mg. per cent Icterus index—10

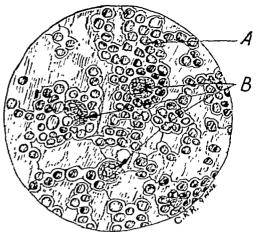


Fig. 2. Peroxidase Stain. A, Lymphocytes; B, Polymorphonuclear leukocytes.

Fouchet—positive
Van den Bergh—immediate reaction
Nonprotein nitrogen—57.2
Amino acid—13.7 per cent
Total protein (P)—9.4 per cent
Total protein (S)—9.7 per cent
Albumin (P)—6.0 per cent
Albumin (S)—6.5 per cent
Fibrinogen—0.2 per cent
Globulin (P)—3.2 per cent
Globulin (S)—3.2 per cent

X-ray examination of the chest showed a more or less generalized hazy, feathery increase in the markings throughout the medial portions of both lower lung fields. There was also some evidence of bilateral thickening of the pleura. The cardiac shadow was increased in size and was droplet in shape. These changes were thought to be due to leukemic infiltration, with also the possibility of a chronic passive congestion. A flat plate of the abdomen revealed, on the left side, a large shadow extending from the level of the diaphragm to the left iliac crest, thought to represent the spleen.

It is interesting to note that because of the very marked leukocytosis and very marked anemia, it was almost impossible to obtain satisfactory precipitates for a completion of the blood chemistry.

Blood typing was also rendered extremely difficult, but it was finally decided that the weight of the evidence was definitely in favor of the patient's being a type IV. However, on cross-matching, agglutination was found, in some cases, with the patient's cells and the proposed donor's serum. The patient was, however, given a transfusion with type IV whole blood, which in the cross-matching revealed no agglutination with the patient's serum and the donor's cells and very slight agglutination with the patient's cells and the donor's serum. After 300 cc. of blood had been given, there was a slight reaction, during which the temperature rose from 100.6 to 102.2 F. and during which also he experienced mild chills. Transfusion was stopped at that time.

# Case Report

### CHRONIC LYMPHATIC LEUKEMIA—REPORT OF TWO CASES

CHARLES R. RICHARDSON, M.D., Clifton Springs, New York

CHRONIC lymphatic leukemia is a pathologic condition resulting from idiopathic hyperplasia of the lymphoid tissues. It is characterized by extensive proliferation of abnormal and immature nongranular, or lymphoid, types of cells, and their preponderance in the peripheral blood as determined by hematologic methods and the study of the bone marrow and fixed tissues. The cause is unknown, but it is placed with the malignancies.

Males are more frequently affected, and the disease is prone to occur in the later decades. There are also no proved predisposing factors. The cardinal signs and symptoms of leukemia are to be found namely, fatigue, enlarged lymph glands, splenomegaly, hepatomegaly, and an increased tendency to bleed, and, of course, the blood picture.

I present the first case as an outstanding example of lymphoid cell proliferation.

Case 1.-W. L., a white male aged 64 years, was admitted to the clinic on May 11, 1942, com-plaining of a sore throat and pain and swelling of the right lower leg. On questioning, he stated that he had been having frequent attacks of sore throat and "tonsillitis" during the winter months for at least five years; considering these simply as the sign of a simple "cold," he did not consult medical advice, but resorted to home remedies and self-medication. The relief obtained was definite but temporary. Each attack consisted of a severely sore throat, a feeling of fullness in the back of the throat, and was accompanied usually by a unilateral earache. During the preceding winter, these sore throats became somewhat more severe and more frequent, so that, urged by his son, he presented himself at the local hospital clinic for examination and advice concerning removal of his tonsils. These, according to his report, were found to be markedly enlarged and acutely inflamed. He was accordingly advised to resort to local symptomatic treatment until the inflammation subsided and then to report for tonsillectomy.

Local symptomatic treatment offered little relief, but the patient did not return to the hospital for further advice. About three to four weeks prior to this admission, he began feeling quite weak and finally became unable to do his farm work. Three days before coming to the clinic, he noticed that both ankles were quite swollen, the right somewhat more so than the left. He became aware also of pain in the right calf and ankle. At the insistence of his son, he was brought to the clinic for complete

The family history is not remarkable, nor is it at all contributory. The patient's past personal history is also not remarkable. The patient was unable to recall any childhood diseases, stating medical check-up. quite emphatically that he had never been sick

except for the frequent sore throats as described above.

Systemic review revealed that the patient experienced moderate chest oppression, amounting in certain instances to a dull pain, during a severe head "cold." This was described as just beneath the upper portion of the sternum. Prior to the present attack, the ankles had never been swollen. Interrogation concerning the gastrointestinal and the genitourinary systems revealed no abnormality of importance.

The reliability of the history as obtained from the patient and confirmed in essence by the patient's son may be questioned somewhat because of his poor command of English and because of mutual

interpretation difficulties. Physical examination on May 11, 1942, the day of admission, revealed a moderately alert, fairly well-developed, fairly well-nourished white male of about the stated age, appearing definitely pale and ashen and seemingly chronically ill. The skin was warm and dry and of normal texture. Hair distribution was of the normal male type; cranium was of normal contour and revealed no bony exostoses or other gross abnormalities. Eyes were normal in appearance, movement, and tension; pupils were equal and regular and reacted to light and accommodation. commodation; eyegrounds were not remarkable. Ears and nose showed no obstruction, bleeding, or discharge; there was definite pallor of the nasil mucous membranes. The tongue was slightly coated, the oral and pharyngeal mucosa were de-finitely role and the tongile man markedly byperfinitely pale, and the tonsils were markedly hypertrophied, pale, cryptic, and appeared chronically diseased. Dental hygiene was poor and the gums showed definite a live and the gums poor and the gums showed definite a live and the gums poor and showed definite pallor, but no bleeding, ulceration, or discoloration. Cervical lymph chains bilaterally were moderately enlarged and easily palpable. The thyroid was not palpable. Examination of the about revealed a normal content of the hory cape. chest revealed a normal contour of the bony cage with no gross abnormalities; tactile fremitus was normal; and the lungs were resonant throughout to percussion. Percussion also revealed slight enlargement of the mediastinal dullness both to the right and to the left of the sternum throughout its length. Breath and voice sounds were essentially normal. A few moist rales were heard over both bases posteriorly; there were no other rales, and no pleural friction rub. The heart was somewhat enlarged to percussion. Sounds were of fair quality, regularing the transfer of the property regular in rhythm, and the rate was 104 per minute, with no murmurs, no pericardial friction rub. Arteries showed marked beading.

The abdomen was markedly distended and tense; superficial veins were prominently distended, but not conforming to the caput medusae pattern; there was marked diastasis recti abdominis with evidence of a tumor mass at the upper pole, suggesting possibly herniation of omental tissues. The liver was palpable 1½ fingerbreadths below the right costal border, and the spleen was palpable in the left upper quadrant and in the left lower quadrant about 4 fingerbreadths below the level of the umbilicus.

No other masses or organs were palpable.

Read before the Neuron Club of Central New York, June 27, 1942.

# Federal Emergency Maternity and Infant Care Program in New York State

# A Report of the Council Committees of the Medical Society of the State of New York

THOSE responsible for the preparation of this article hope that the information herein will provide a better understanding of the Emergency Maternal and Infant Care Program<sup>1</sup> and will acquaint the medical profession with some of the difficulties which have arisen.

Congress made funds available in March, 1943,<sup>5</sup> and shortly thereafter (March 24–25) the Children's Bureau of the United States Department of Labor, which directs the program, conferred in Washington with the state and territorial health officers and their directors of maternal and child health programs for the purpose of presenting the Children's Bureau's plans to these officials and of discussing the Bureau's administrative regulations governing the use of the Federal appropriations for this purpose.

Immediately after returning from Washington, Dr. Edward S. Godfrey, Jr., State Commissioner of Health, requested a conference with the appropriate Committees of the Medical Society of the State of New York. The first meeting was

held on April 7, 1943.

Ten such conferences were held. These conferences were attended by the President, President-elect, Secretary, members of the Council Committees, and sometimes other officers of the Medical Society of the State of New York, the New York State Commissioner of Health and members of his staff, the New York City Commissioner of Health and members of his staff.

At one of these conferences held October 28, 1943, the Regional Chairmen in Obstetrics and Pediatrics of the Medical Society of the State of

New York<sup>3</sup> were present.

Four of these conferences were held before the New York State Department of Health submitted its first proposal on June 18, 1943, for an operating plan under the rules and regulations of the Children's Bureau. Discussions at the first four meetings were devoted largely to certain basic requirements of the plan proposed by the Children's Bureau. As a result of criticisms made by members of the conferences, the State Commissioner of Health made vigorous presentations to the Children's Bureau for changes in the plan. Although the members of the conferences were dissatisfied with several aspects of the program, there never was any objection to its objective; namely, to assure good maternity and infant care for the families of men in the armed services. This opinion was officially expressed by the House of Delegates of the American Medical Association, and has been repeatedly expressed by the officers of the Medical Society of the State of New York and in resolutions of many of its constituent county medical societies.

The Children's Bureau has made changes in the plan as a result of recommendations proposed at conferences of the Council Committees<sup>2</sup> and representatives of the New York State Department of Health. Efforts to obtain further desirable changes have by no means ceased.

There has been splendid cooperation between the official State agencies and the Medical Society of the State of New York in the development of the plan for the State of New York.

The following is a summary of the features of the program, as presented by the Children's Bureau, that received particular attention by the members of the conference and their disposition:

1. The requirement that payments be made directly to the physician or hospital rendering service.

It was the view of the Council Committees\* that this money should be given as a cash allotment directly to the service man's wife.

This opinion was presented to the Children's Bureau by the State Commissioner of Health on June 9, 1943. The Children's Bureau advised that such a procedure would be impossible under their interpretation of the intent of Congress. Accordingly, the State Commissioner of Health advised the Council Committees that this matter was beyond his control and should be taken up with Congress by the organized medical profession.

On September 22, 1943, an amendment to the act appropriating further funds for the Emergency Maternity and Infant Care Program, which would have provided a cash allotment rather than direct payments to physicians or hospitals, was proposed by Congressman Smith from Ohio. This amendment was overwhelmingly rejected.<sup>6</sup>

2. The provision of hospital care at the "ward cost per patient day" to be determined by a prearranged formula.

It was the opinion of the Council Committees that the use of ward facilities would tend to direct patients away from private care inasmuch as many hospitals, especially in the metropolitan New York area, would not permit private patients on their open wards.

<sup>\*</sup> The term "Council Committees" as herein and subsequently used shall mean the Council Committee on Public Health and Education and its subcommittees on Maternal Welfare and Child Welfare.

TABLE 2

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Therapy was poorly supportive and x-ray therapy was refused by the patient. After the prognosis was discussed with members of the family, the patient was taken home and died twenty-two days after the day of admission. Postmortem was not obtained by the family doctor.

The second case, which was under observation at the same time, is of interest because of a coexistent bronchopneumonia, which responded to sulfonamide therapy.

Case 2.—E. V. M., a 67-year-old white woman, was admitted to the clinic on May 5, 1942, having been sent by a local physician. She had a history of a recent type III pneumococcus pneumonia with poor convalescence, during which she had been given 40 grains of sulfathiazole a day for three days in divided doses, then 30 grains a day in divided doses for two days. Cardiac failure had been present, for which the patient had been digitalized and placed on a maintenance dose of 1½ grains of digitalis daily.

Family and personal history were not remarkable except for the fact that the patient had had an extreme susceptibility to acute upper respiratory infection for a number of years.

Examination on admission revealed a well-developed, obese, white woman, acutely ill, moderately cyanotic, and semicomatose. Examination of the chest revealed numerous moist rales throughout both lung fields; definite evidence of consolidation at the left base was revealed on clinical and x-ray examinations. Blood count on admission revealed a leukocyte count of 32,400, with 82 per cent lymphocytes. A diagnosis on the day of admission was made and included: chronic lymphatic leu-

kemia, bronchopneumonia, and early cardiac failure.

On the night of admission, the temperature rose to 104.8 F., and the patient was moribund. At that time, she was given nasal oxygen and 6 Gm of sulfadiazine rectally. From that time on, the patient seemed to improve rapidly, and in four hours the temperature had dropped to 102 F. and the patient had roused from her stuporous condition. Sulfadiazine was continued in 1 Gm. doses orally thereafter, and the temperature curve rapidly leveled of at a normal reading. The sulfadiazine was continued for three days after the temperature had returned to normal. Blood studies were done daily, the results of which may be seen in Table 2.

Just before discharge, the patient was given a transfusion. At the time of discharge, the white blood count was still markedly elevated and measured 69,000 with 92.7 per cent lymphocytes. The discharge diagnosis, of course, was chronic lymphatic leukemia.

#### Discussion

The first case here presented is of interest, in my opinion, because of the extreme degree of lymphocytosis and the paucity of clinical symptoms until a few days prior to admission and, incidentally, up to a few weeks prior to death. The second case here presented is interesting because of the opportunity of observing effects of sulfadiazine, as used in the treatment of a coexisting pneumonitis due to mixed infection, on the definite chronic lymphatic leukemia which was present. The effect seemed to be little or none as regards the lymphoid cell proliferation. So far as the pneumonitis is concerned, however, the results were good.

### SIGN HERE, DOCTOR!

Additional fuel oil? Have your doctor sign... oh, it is gasoline you wish for a motor trip for your health. No matter—just have your doctor sign special form 3784x. Perhaps you are short on your vitamins, or orange juice doesn't agree with you?

Well, why don't you get a doctor's certificate and take it to your ration board so that you may get more red points for meat, or blue points for canned pineapple juice? You're tired and would like a rest? Didn't you know that you can get sickness insurance benefits while you are out ill? All you

need is a certificate from your doctor. Or perhaps your job doesn't agree with you when you know you can get more money elsewhere. In that case you can get clearance if you show your present work is injurious to your health. Get a certificate from your doctor. What do you mean you can't get a certificate from your doctor? Do you mean to say that he has enlisted in the Army and is with the forces invading Sicily? He can't do that to you. Your health is important, and besides you have got to get a doctor's signature these days to get anything—Editorial in Rhode Island, M. J.

The following are examples of matters now pending:

1. The initial plan of the Children's Bureau urges the importance of infant health supervision but in so doing provides that it must be rendered through approved child health conferences or wellbaby clinics where they exist and are available without a so-called "means test." Where such are not available such supervision can be given under the plan only by a pediatrician or physician meeting special qualifications in this field.

While the Council Committees and the State Commissioner of Health were thoroughly in accord with the inclusion of provisions for health supervision, they felt that the regulations were impractical and unreasonable in that they did not permit the patient the choice of a child health conference or a private physician, nor did they make a reasonable provision for the general practitioner who may deliver the baby and take care of it while it is sick but not supervise it while it is well.

These objections were presented by the State Commissioner of Health and other persons and groups,8 and early revision of the present policies is anticipated so that health supervision may be established on a more reasonable and workable basis.

2. The Children's Bureau has interpreted the appropriation as intended to cover all medical care required by the expectant mother throughout her pregnancy and for six weeks thereafter. In this interpretation it has stated that the fee for complete maternity care or the fees for such additional consultant services as may be indicated shall cover all necessary medical care during said period.

The Council Committees and the State Commissioner of Health believe that this policy is unreasonable and will be changed in favor of fairer definition of the types and extent of illnesses which the physician is called upon to care for under the fee for complete maternity care.

3. Criticism by the practicing physicians of the various forms and statements which the State Department of Health has required in the operation of this plan.

At the request of the State Commissioner of Health, the President of the Medical Society of the State of New York appointed a committee of two obstetricians and one physician in general practice, to advise with the Commissioner on the revision and simplification of these preliminary

The Commissioner has told the Council Committees that the revision is completed and that

simplified forms have resulted which should reduce to a minimum the complexity of this particular phase of the program.

In presenting this review, the Council Committees desire to emphasize the following: First, there has been the closest cooperation between the State Commissioner of Health, representatives of the Medical Society of the State of New York, the Commissioner of Health of New York City, and many other interested medical groups. They have worked and will continue to work cooperatively in an attempt to bring about other desirable adjustments with the Children's Bureau. Second, the Children's Bureau has given assurance that this program has been developed strictly for the purpose of meeting an emergency for the duration of the war and six months thereafter. Third, while many of the problems that were presented have not been entirely resolved, progress has been made and efforts are being continued.

The Council Committees believe that all reasonable efforts are being made by them and the State Commissioner of Health in the interests of the patients and the medical profession. They believe that the majority of physicians in New York State appreciate the need of cooperation in a program of such wartime importance. They also believe that with or without an E.M.I.C. program, the obstetric and pediatric care of the wives and infants of service men will be well provided by the medical profession.

<sup>1</sup> A summary statement of the provisions of this program

as it now operates appears on page 298 of this issue.

The Council Committee on Public Health and Education: Dr. O. W. H. Mitchell, chairman; Dr. George Baehr, Dr. Charles D. Post.

The Subcommittee on Maternal Welfare: Dr. Charles A. Gordon, chairman; Dr. Edward C. Hughes, Dr. Alexander

T. Martin, Dr. James K. Quigley.

The Subcommittee on Child Welfare: Dr. Alexander T.

Martin, chairman; Dr. Paul W. Beaven, vice-chairman; Dr. Charles A. Gordon, Dr. Albert D. Kaiser, Dr. A. C.

For the list of Regional Obstetric and Pediatric Chairmen, see the New York State Journal of Medicine 43: 622-623 (April 1) 1943.

4 J.A.M.A. 122: 621 (June 26) 1943.

New York State J. Med. 43: 1133 (June 15) 1943.

Ibid., 43: 1397 (July 15) 1943. J.A.M.A. 122: 382 (June 5) 1943.

Ibid., 122: 945 (July 31) 1943.

Ibid., p. 1251. Ibid., p. 1257.

Congressional Record, House, Sept. 22, 1943, p. 7855. Congressional Record, Senate, Sept. 28, 1943, pp. 7954-

<sup>7</sup> J.A.M.A. 123: 1125 (Dec. 25) 1943.

Notably, District Number I (upstate New York) of the American Academy of Pediatrics, the American Academy of Pediatrics, and the conference group called by the Children's Bureau in Washington on December 10 and 11, 1943.

Advisory Committee on E.M.I.C. forms to the State Commissioner of Health: Dr. George W. Kosmak, Dr. James K. Quigley, and Dr. Herbert E. Wells.

Preliminary inquiry indicated that the hospitals for the most part were either unable or reluctant to change this rule. In consequence, the program was modified in New York State so as to require that, with the exception of certain teaching hospitals, care must be provided in "small private wards or in semiprivate accommodations," thus permitting the desired relationship between patient and private physician to continue.

This change was accepted by the Children's Bureau.

Subsequent experience showed it to be impractical because of insufficient semiprivate or smallward facilities. The plan was, therefore, further modified to permit ward care of private patients and, in general, the hospitals have found the means of making this possible.

3. Provisions for remuneration of physicians.

It was the opinion of the Council Committees that the compensation provided for maternal care was low in comparison to that usually received by physicians in New York State for such services.

The State Commissioner of Health obtained the consent of the Children's Bureau for an increase in the remuneration. Similarly, the amount available for the care of a sick infant was increased.

4. The plan provides for additional fees where the services of a qualified consultant are required but makes no provision for recognizing the extra services of a qualified obstetrician or pediatrician where such physician has undertaken the basic maternity or sick infant care of a patient under the plan.

In other words, if an obstetrician accepts a maternity case he must provide all care related to the pregnancy, including the care of major obstetric complications, for the fixed fee, whereas, if the basic maternity care is given by a general practitioner at the same fee, he is not expected to care for major complications and may call upon a qualified specialist, to whom a separate fee is paid.

The Council Committees believe that some system should be devised for recognition of the extra services of the qualified specialist and for compensating him in keeping with the extra services rendered.

The State Commissioner of Health recommended to the Children's Bureau that a differential rate be established in recognition of the services of qualified specialists. The Children's Bureau expressed itself as sympathetic to this request but in view of the fact that Congress has already questioned the maximum fees it was allowing, it felt that it was not in a position to recommend such a plan at present.

5. Fees paid under the plan must be the only compensation received for the services authorized under the plan. This regulation provides that the payments to the hospitals or physicians by the State Department of Health cannot be used as a means of part payment for more luxurious hospital accommodations than those offered under the plan, nor can the patient pay the physician a supplementary fee regardless of her possible ability and desire to do so.

The Council Committees believe that in view of the failure to have the available funds paid directly as a cash allotment, an alternative would be to allow the funds available to be paid directly to the physician or hospital as complete or partial payment for the services rendered in accordance with the patient's own arrangements with the

physician and hospital.

The Commissioner of Health presented this request to the Children's Bureau. The Children's Bureau did not feel that such a regulation was within the purpose of the appropriations and,

therefore, could not accept it.

This matter was discussed in Congress rather inadequately, and passed over without serious consideration. It was recently taken up at a conference between the Children's Bureau, the official representatives of the American Medical Association, American Hospital Association, and other groups and organizations concerned. The expressed concensus of this group was in opposition to such a proposal.

6. Initial plan that care given preceding date of authorization of the formal application for care

could not be paid for under the plan.

The Council Committees and the State Commissioner of Health objected strenuously to these limitations on the ground that they set the necessary administrative procedures above the actual intent of the appropriation, and the initial plan for New York State submitted to the Children's Bureau made broad provisions for retroactive approvals to provide care for those eligible from the first of April, 1943.

The Children's Bureau was sympathetic to the purpose of this request but for administrative reasons could not see fit to grant it. However, a few concessions were allowed in the interest of lessening the injustices that might arise through misunderstanding in the early days of the pro-

The New York State plan was finally put into effect on July 1, 1943.

At the later conferences many details of the plan and several major issues which had not been previously presented to the Children's Bureau have been discussed and further adjustments in the plan are anticipated.

F. Hospitalization may be provided the prospective mother at any time after original authorization up to six weeks after delivery for any illness requiring such hospitalization and for the infant during its first year of life, provided medical care has been authorized under the plan or is otherwise provided at no cost to the patient or her family. The individual hospital is free to determine the type of accommodations it can offer patients under the plan. The per diem rate allowable is determined on the basis of hospital costs calculated in accordance with the Children's Bureau formula and is intended to include all the extra services usually required, such as delivery room, anesthesia, laboratory service, and medications.

G. Complete medical and hospital care may be provided through the clinics and on the wards (under staff care) in hospitals operating services approved for internships, or residencies in obstetrics or pediatrics by the Council on Hospitals and Medical Education of the American Medical Association, provided the patient elects to receive such care. In such cases, the hospital may receive a fee not to exceed \$1.50 per clinic visit up to a total of ten visits, but may make no charge over and above its per diem ward rate, as established under the Children's Bureau formula, for medical services rendered while the patient is in the hospital.

H. Other services available:

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1. Bedside nursing care by a registered nurse may be authorized in home or hospital for acutely ill patients requiring it and will be reimbursed at locally accepted rates.

Visiting nursing service should be employed whenever it is available through a health agency and at no cost to the patient, and patients under the plan will be referred routinely to the attention of such agency. Otherwise, visiting nurse service may be authorized, upon application, at rates agreed upon between the State Department of Health and approved agencies for routine delivery care and otherwise as required.

3. Emergency medical assistance to the attending physician at home delivery may be authorized and will be reimbursed at the home visit rate of \$3; medical assistance at an operation performed by a consultant may be authorized at the rate of \$10 (provided qualified interns or residents are not available for this purpose).

Anesthesia. No provision is allowed for an anesthetic fee in the case of a normal home delivery other than as described above in item 3, nor for hospital deliveries, whether normal or operative, where the hospital enters fees for anesthetists in its statement of operating costs. Where the hospital does not do so and a trained intern is not available, a competent physician may administer the anesthetic and receive reimbursement as a medical assistant, as stated in item 3 above, excepting that in normal deliveries he can receive only the hospital visit rate of \$2.\* If, however, the delivery or other procedure is operative, he may receive a fee of S10.

5. Blood or plasma for transfusion may be purchased at the local prevailing rates for ward patients.

6. Ambulance service may be employed when indicated at the local prevailing rates.

7. Unusually expensive drugs may be provided under the plan, provided they are essential and are included in a list of such drugs to be established by the Commissioner of Health with the advice of a competent advisory committee.

Unusually expensive laboratory tests may be provided under conditions as above stated in item 7.

Services at present not provided:

1. No provision is made to reimburse physicians for circumcision performed during the lying-in period unless it is performed for medical reasons. In such circumstance, an application for care of a sick infant is required and a fee of S5 allowed.

2. No special provision is made for a fee for care of the newborn infant during the first two weeks of hospitalization of the mother. Applications for pediatric health supervision may, however, be made at once and such care may start immediately after birth. Prematurity constitutes a basis for application for care of a sick infant.

3. No provision is made for dental care under this plan.

#### Procedures in Connection with Ap-III. plication

A. Application forms can be obtained from the district state health officer. They may be obtained at local Red Cross chapters, cooperating hospitals, or other agencies designated by the district state health officer.

B. Responsibility for seeing that the application is completed and mailed to the district state health officer rests with the applicant.

 C. Delayed application may result in inability of the State Department of Health to authorize reimbursement, since the date of signature of the applicant determines the date on which authorization can commence. The effective date is the date of signature for maternity care and not more

<sup>\*</sup> Pending attempts to establish a fee of \$5 under this plan as approved by the Children's Bureau of the United States Department of Labor.

# Summary Statement of the Federal Emergency Maternity and Infant Care Program—New York State Plan

## New York State Department of Health, Albany, New York

THE New York State Plan for the Federal Emergency Maternity and Infant Care Program has been promulgated under the administrative instructions of the Children's Bureau of the United States Department of Labor acting under the authority of Congress.

The object of the plan is to provide payment for maternity care (medical and hospital) for the wives and all necessary medical and hospital care for the infants under one year of age of service

men in pay grades 4, 5, 6, and 7.

### I. Eligibility

The husband or father must be in pay grade 4, 5, 6, or 7 of the Army, Navy, Marines, or Coast Guard (living, missing in action, or deceased) at the time of application.

Where adequate facilities are offered by the Army or Navy, or through a health department service, such services must be utilized in so far as they are able to meet the needs of the patient.

# II. Care and Fees Allowable Under the Plan

A. The Children's Bureau requires that the physician, hospital, individual, or agency rendering any service authorized for payment under this plan agree not to charge or accept any remuneration for such service than through the State Department of Health as herein provided.

Authorization for basic medical care (maternity or infant care) under the plan is a requisite to authorization for any of the other services described below (sections II-D to II-H) unless such basic medical care is supplied (at no cost to the patient) either through an insurance plan or gratuitously.

B. Complete maternity care:

For complete maternity care defined as including at least five prenatal visits, made on or subsequent to the effective date of authorization, delivery, and postpartum care, including final examination of mother and newborn infant at approximately six weeks, a fee of \$50 will be allowed. If less than five prenatal visits are made during the period of authorized care (i.e., commencing with the date of applicant's signature—see section III-C) deductions of \$3 will be made for each visit less than five. Similarly, if the patient is discharged from care prior to five weeks after delivery, full payment for complete obstetric care cannot be given. If service is divided, a maximum of \$15 will be allowed for pre-

natal care, \$35 for delivery and complete postpartum care, and \$10 for complete postpartum care only, or, if not complete, at the rates for a house or hospital visit as specified below (item C-1) but not to exceed a total of \$10.

- C. Medical care of infant during first year of life:
  - 1. For acute illness, care may be authorized for a period not in excess of three weeks (renewal of authorization is required for cases of longer duration). A limit of \$24 in fees is allowed per authorization on the basis of \$3 per house visit and \$2 per office or hospital visit, with the further provision that the fees during the first week of illness cannot exceed \$12, and for any subsequent week of the same illness, \$6 each week.
  - 2. Pediatric health supervision by a qualified pediatrician or a physician who has had special training in pediatric health supervision may be authorized for the purpose of advising on feeding, observing and guiding development, and giving immunizations for well infants under one year of age at \$2 per office visit to a total of \$18 (or nine visits). It is at present required, however, that where adequate child health conferences or well-baby clinics are available at no cost to the patient and without the application of a means test, such clinics must be used.
- D. Consultation services by qualified specialists may be authorized for patients under maternity or sick infant care whenever there is reasonable indication. Such services, where no operation is performed by the consultant, will be reimbursed at the rate of \$15 for the first visit in the home or \$10 for the first in office or hospital, and \$10 for subsequent home or \$5 for subsequent office or hospital visits. A single authorization will allow up to three visits. Where an operation is performed by the consultant, reimbursement will be on the basis of a fee schedule to be established (as nearly comparable to the Workmen's Compensation Schedule as is possible). The operative fee shall include the diagnostic visit and necessary postoperative visits, but may in no instance exceed a total of \$50.
- E. Consultation services for intercurrent illness during pregnancy or six weeks thereafter when the illness is such as to jeopardize life or the continued health of the patient or her infant (see

consultant services).

sioner of Health will ask each county medical Society to canvass the physicians in their county and to supply him with a list of physicians who desire and, in the opinion of the Society, are qualified to participate. Physicians who are qualified will then be duly notified and every effort will be made by the Department not only to keep them currently informed of the conditions of the plan, but also to continue its effort in bringing about further adjustments in the plan that would be advantageous to the patient, physician, and others participating.

#### THE PUBLIC'S FOOT

One of the difficulties in getting people to take action in any given direction is that human beings are almost certain to miss the significance of a simple declarative sentence, or of a routine happening. To catch attention there must be some emphasis by tone or inflection or accent or play on words, or some drama or association, or climax. In contrast to a flat declaration, consider the statement that "An army marches on its stomach." Here there is association between this truth in metaphor and the somewhat ridiculous mental picture that it creates. From this association comes remembrance, and remembering, one ponders. But if the statement is "The public walks on its feet," or if the observer notes that this is so, the listener or reader or observer is unimpressed. The information obtained is not news, nor is it dramatically presented. It appeals neither to the esthetic nor the intellectual and it fails to arouse either sympathy or after-

Even if "The public walks on its feet" is an unimpressive statement, the fact that man does so walk, rather than on feet and hands, has created a far-reaching public health problem. For though structurally and functionally the foot is an amazing mechanism, it is not yet completely adapted to the erect posture. Nor is the bony skeleton of one person's feet so exactly like another's, or the amount and distribution of downward pressure so much the same that, proper width and breadth assured, the ordinary stock shoes are suitable for all people. The net result of these various contributing factors is foot trouble for a large proportion of the public, just what proportion it is hard to say. No hard, cold, reliable data are available on this point, but common observation indicates that more than a majority of adults have one or another kind of foot pain, weakness, or impairment. If this were not so, bedroom slippers would not always be shown in pictures of the tired business man, relaxed at home. And if uncomfortable feet were not a part of woman's cross, there would be lots less pawing around for

shoes in the dark of the moving picture theater.

It may fairly be said, then, that foot discomfort and partial disability are relatively highly prevalent. At the same time it must be confessed that there are few places to which the foot sufferer may turn with any assurance of relief. Foot troubles do not kill, nor are they as a rule completely disabling, and the medical profession and public health workers are not inclined to give much thought to a disability which does neither of these things. Apparently the subject is beneath the notice of the high-powered orthopaedist, and he will have none of it. Give him something that involves fractures, stiff joints, deforming that a subject the subject in the subject to the formities, plaster casts, and the adjustments of muscles, and he is your man; but go to the same orthopaedist with nothing more serious, from his standpoint, than a callus, and he is not likely to be interested, and not assuredly competent. The average physician, for his part, lacks fundamental knowledge as to the complicated functional anatomy of the foot. He is not, therefore, in position to bring relief to the patient, and ends up by referring her or him to a shoe store or a chiropodist. This is not to suggest that physicians undertake the routine trimming of toenails or the cutting of corns. But it does seem worth emphasizing that pedal disabilities constitute a vast problem and a correspondingly vast demand for relief, and that since the medical pro-fession is not meeting this demand, these sufferers are seeking aid and comfort in other directions. They thus create public support and, in some instances, legislative backing of those who, from the medical standpoint, must be regarded as irregulars and subprofessional, and therefore not a group to be encouraged. And, more important from the sufferer's standpoint, he gets only temporary relief, as a rule.

Another deterrent to serious consideration of the foot is that at its best, and even with red toenails, it is not a thing of which poets often write: of the ankle (female), yes; of the curve of the calf (female), higher and higher praise; but of the foot, male or female, no. This is understandable, for to the casual observer, the foot is but a slewed-out, battercakelike extremity, with over-riding toes and a strong tendency to corns, calluses, and bunions. And so to the world at large the foot is not an inspiring subject and, unlike syphilis, has not been adopted by fashionable society as a drawing room topic. Each dowager and smart young matron tends to regard her own foot pains as personal, a bit on the vulgar side. Obviously, if the woman of leisure does not feel that this is a dilemma from which she must deliver her lesser sisters, the lesser sisters must continue to suffer surreptitiously, and so with the butcher, the baker, and the policeman on his beat. Not until these foot sufferers become as vocal and clamorous and objectionable as a militant minority, though they are not a minority, will the medical profession be moved to find an answer.

In spite of all these things, a few physicians have undertaken serious study of the comparative anatomy of the foot, of its evolution, its mechanics, of the effect of the erect posture, and the pull of gravity on and through the foot. As nearly as can be gathered, these men have established relatively simple diagnostic procedures and quite effective therapy. Apparently, however, their pleas that the medical profession adopt a different attitude in regard to foot troubles, that it inform itself, and that it exercise modern diagnosis and therapy have fallen on deaf ears. And the suggestion that foot troubles constitute a public health problem is likely to strike horror in the hearts of the virus worker, the nutritionist, the administrator, the epidemiologist, unless they happen themselves to have some personal experiences along this line. But let it not be forgotten that the high incidence of a minor and lowly disability may constitute a more serious public health problem than does some aristocratic but comparatively rare disease.—Editorial in Am. J. Pub. Health

than seven days prior to the date of signature for sick infant care or two days for emergency care.

- D. The patient has free choice of her physician and hospital provided the physician and hospital are willing to accept patients under the provisions of the Emergency Maternity and Infant Care Plan.
- E. Emergency care may be rendered patients eligible under this plan and authorization subsequently obtained provided application is made within two days (Sundays and holidays excepted). Such application must be made for basic medical care (maternity or sick infant) or hospitalization and for nursing service of more than forty-eight hours' duration. Authorization of the other services allowable, such as consultation, medical assistance, emergency nursing for less than forty-eight hours, ambulance or other special services, may be requested at the time of submitting the statement of services rendered. If, however, the physician or hospital administrator prefers the assurance of authorization for payment before that time, it may be obtained by a telephone request to the district state health officer.
  - F. Procedures to be followed by physician:
  - 1. He may wish to advise eligible patients of plan and where they may obtain application forms.
  - 2. He should verify the husband's or father's rank from the family allowance card or a letter (verification is required by regulations of the Children's Bureau).
  - 3. He should discuss the hospital to be used and advise patient to make prompt application to the hospital so that her hospital application also may be filed early and arrangements for care reasonably assured in advance of delivery.
  - 4. Within two weeks of mailing the application to the district state health officer, the physician and patient each should receive notification of the action taken. If this is not received, he may wish to make inquiry of the district state health officer.
  - 5. Upon completion of the service authorized, the physician should complete the "Statement of Services Rendered" which will be sent him with the authorization notice and send it to the district state health officer. The regular State voucher for payment required by the State Comptroller will thereupon be made out for the physician's signature and sent him by the Central Office of the State Payment of the Department of Health. amount stated on the voucher will usually be made within four weeks of the date of its return to the State Department of Health. If for any reason the physician cannot be paid in full, the matter will be explained to him.

## IV. Standards of Care

A. The conditions of the New York State Plan, as approved by the Children's Bureau, require that prenatal and delivery care be given in accordance with accepted standards of good obstetric practice, as outlined in the circular "Standards of Prenatal Care" issued by the Children's Bureau (publication No. 153\*). Physicians participating in the plan are required to supply care meeting at least with this minimum.

B. The conditions of the plan, as approved, require that hospitals accepting patients under the plan must meet the "Minimal Requirements for Approval of Hospitals and Maternity Homes" issued by the Children's Bureau on March 30, 1943. Ability to so qualify shall be determined after inspection by the State Department of Health.

## V. Qualifications of Physicians

A. Maternity or sick infant care under the plan may be given by any doctor of medicine who is licensed to practice in New York State and who is a graduate of a medical school approved (at the time of graduation or since) by the Council on Hospital and Medical Education of the American Medical Association. Physicians who do not meet these qualifications, but who have had training or experience of such a nature as to qualify them, may make application to the Commissioner of Health through their county medical society for approval as a participating physician.

B. Consultant services may be rendered by specialists in the appropriate field who are diplomates of a specialty board. Other physicians who have, in the opinion of their county medical society, equal qualifications may be recognized as such upon application to the Commissioner of Health who shall act with the advice of a qualified advisory committee.

C. Pediatric health supervision can, under the present conditions of the plan, be given only by a qualified pediatrician or a physician who devotes a major part of his practice to pediatrics or who has had special training in pediatric health supervision. The Department has submitted to the Children's Bureau a request to permit such care by any physician as qualified under item A above, for a period of one year, during which time opportunity will be afforded for all physicians who desire to do so to attend a brief qualifying refresher course in this subject.

D. To facilitate the establishing of registers of qualified men as above stated, the Commis-

<sup>\*</sup> Copies of this are being sent to all physicians participating in the program. Additional copies may be obtained upon request of the district state health officer.

# Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the Journal. The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.

## Laboratory Tests and Methods in Medicine

A SINGLE lecture on general medicine was given before the Suffolk County Medical Society at Link's Old Oak Hotel, Patchogue, at 12 m. on Wednesday, January 26, 1944.

The title of the lecture was "The Significance

of Laboratory Tests and Methods in the Practice of Medicine." The speaker was Dr. Ralph G. Stillman, assistant professor of medicine (clinical pathology) at Cornell University Medical College in New York City.

## "Rheumatic Fever-Rheumatic Heart Disease"

A LECTURE entitled "Rheumatic Fever—Rheumatic Heart Disease" was delivered by Dr. J. G. Fred Hiss before the St. Lawrence County Medical Society at 12 o'clock noon on January 20 at the Potsdam Club in Potsdam.

Dr. Hiss is professor of clinical medicine at Syracuse University College of Medicine. The instruction was presented as a cooperative endeavor between the Medical Society of the State of New York and the State Department of Health.

### THE MARRIED LIVE LONGER

The chances of survival are greater for the married than for the single, much more so among men than among women. Not only does marriage select the healthier lives, but it also creates a more healthful environment. The marked advantage of married men over bachelors in respect to mortality persists throughout life, and is greatest at ages from 30 to 44 years, the period during which they are raising their families. At these ages the death rates among the married men are just about half those for the single. This is based upon the experience of the general population in New York State, exclusive of New York City, for the period 1939–1941. Although the relative advantage of the married men over the bachelors decreases progressively with age, it still amounts to almost 25 per cent at ages from 65 to 69 years. Among women, the single are at their relatively greatest disadvantage in mortality during their 30's, and here the differential is only one-quarter.

In the broad age period from 40 to 74 years, spinsters and married women have practically identical

death rates in this experience.

The current situation differs in several respects from that of only a decade ago. Between 1929–1931 and 1939–1941 the death rates declined somewhat more rapidly among the married than among the single at ages under 40. The effect of this has been to add to the relative advantage of the married at these ages. The difference in trend has been very slight among men, the decrease in the death rate at ages 20 to 39 being 38.8 per cent for the single and 39.4 per cent for the married; for women the corresponding declines were 35.7 per cent and 46.8 per cent. The greater relative gain among married women is undoubtedly due in large measure

to the marked improvement in mortality from the conditions incidental to childbearing. At ages 40 or over, the single have experienced the sharper decline in mortality, with the result that the disparity in mortality between the two groups has been reduced.

While the married have a distinct advantage over the single as regards mortality, those whose marriages are broken by death experience a mortality even higher than those who remain single. The largest difference in mortality is found between the widowed and the married. For example, at ages 20 to 44, widowers have death rates from two to four times those for married men; widows at these ages experience rates from one and one-third to twice the rates of married women. The relative improvement in the mortality of widowers during the last decade fell below the records made by either the single or the married, thus widening the gap in death rates between widowers and the other two groups. The picture is not so clear-cut in the case of women.

Obviously, marriage is a stabilizing influence in the life and health of the individual. That it is much more so for men than for women may reflect the fact that women, whether married or single, live fairly sheltered lives. Among men, however, the unmarried are more apt to take greater chances with their health and are less likely to be adequately cared for in case of illness. Another factor is that marriage is a somewhat more selective process for men than for women. The head of the family must at least be well enough to work for a living, whereas women, even if below par in health, can often manage somehow to take care of the home.—Statistical Bulletin, Metropolitan Life Insurance

# Honor Roll

## Medical Society of the State of New York

# Member Physicians in the Armed Forces

## Supplementary List

The following list is the fifteenth supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, and December 15, 1943, and January 15, 1944, issues.—Editor

Abrahams, H. D. Abrahams, H. D.
1430 Ocean Ave., Brooklyn 30, N.Y.
Akelaitis, A. J. E.
Strong Memorial Hosp., Rochester
7, N.Y.
Amateau, M.
Streiter Hosp., Comp. Rucker, Als.

Station Hosp., Camp Rucker, Ala. Ascione, J. F. Bradley Field, Conn.

R

Brown, N. S. 115 E. 67 St., New York 21, N.Y. Byer, J. 285 Ft. Washington Ave., Ne York 32, N.Y. Washington Ave., New

C

Cassino, F. A.
Walter Reed Gen. Hosp., Washington, D.C.
Charap, B. W.
687 Montgomery St., Brooklyn 13,
N.Y.

E

Eller, W. D. Station Hosp., Ft. Eustis, Va.

Fitzgerald, J. M. 442 W. 124 St., New York 27, N.Y. Frank, L. 16 St., Brooklyn 15, N.Y.

Gilhooley, J. F. 89-01 31 Ave., Jackson Heights, N.Y. Goldberg, M. M. 1907 Ave. R, Brooklyn 29, N.Y.

G

Hadsell, L. 149 W. 12 St., New York 11, N.Y. Harrison, L. S. Station Hosp., Camp Forrest, Tenn.

K

Kaplan, A. H. Armed Forces Induc. Ctr., Ft. Jackson, S.C. Klein, E. F. 162 E. 80 St., New York 21, N.Y.

Τ.

Lampert, M. A. 1378 Carroll St., Brooklyn 13, N.Y. 1378 Carroll St., Brooklyn 13, N.1. Linick, M. 246 West End Ave., New York 23, N.Y. Localio, S. A. 303 E. 20 St., New York 3, N.Y. Lyons, A. L. 164-03 Crocheron Ave., Flushing, N.Y.

м 3747 61 St., Woodside, N.Y. Monen, S. A. Mitchell, M. 465 Ocean Ave., Brooklyn 26, N.Y

Odenwald, R. P. Carlisle Barracks, Pa.

Paladino, J. L. 413 50 St., Brooklyn 20, N.Y. Post, A. 7 W. 96 St., c/o H. G. Rappaport, New York 25, N.Y.

Rainville, A. E. 112-45 200 St., Hollis 12, N.Y. Robinson, W. E. 25-40 31 Ave., Astoria 2, N.Y. Russow, E. H. 71-18 69 Pl., Glendale 12, N.Y. Ryan, G. S. 1088 Park Ave., New York 28, N.Y.

Shey, H. H. 1170 Nameoke St., Far Rockaway, N.Y. Spector, S.
1173 Eastern Pkwy., Brooklyn 13.
N.Y.

W

Wishner, M. I. 3578 De Kalb Ave., Bronx 67, N.Y.

### BETTER FAMILY DOCTORS

Some interesting observations made by Brig. Gen. David H. W. Grant, the Air Surgeon, United States Army Air Forces, were recently reported in the press. General Grant is quoted as stating that the family doctor is "coming back" after the

Speaking specifically of flight surgeons, he says that even though they are specialists, they are required to attend all the medical needs of individuals under their care. In this way they are being well prepared to do general practice, in which preventive medicine will have an important part. The flight

surgeon must be alert for signs of fatigue, emotional upsets, and organic disease of men flying our planes. In other words, his job is to keep them fit so as to

"keep 'em flying."
Rear Admiral Ross T. McIntire, Surgeon General of the United States Navy, in addressing the 15th Annual Scientific Assembly on October 2, also emphasized the fact that physicians returning from military service to civilian practice will apply preventive medicine to a much greater degree than has been done in the past.—Editorial in Med. Annals, District of Columbia

Assembly Committee on Labor and Industries

F. A. Washburn, Columbia, Chairman H. A. Rapp, Genesee H. C. Ostertag, Wyoming S. C. Shaw, Tompkins E. T. Barrett, Suffolk F. S. Hollowell, Yates

M. Wilson, Westchester

S. F. Wickes, Essex

. 3

J. F. Wadlin, Ulster Ralph Schwartz, Kings J. J. Gans, Bronx C. J. Beckinella, Kings Frank Rossetti, New York P. V. Baczkowski, Erie J. E. Zimmer, Rensselaer J. R. Brook, New York

#### Assembly Committee on Public Education

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Chairman
Jane H. Todd, Westchester
C. T. Backus, Otsego
F. J. Sellmayer, Monroe
Edith C. Cheney, Steuben
W. E. Brady, Greene
Henry Neddo, Washington

L. W. Olliffe, Kings
L. P. Noonan, Cattaraugus
E. K. Corwin, Schuyler
P. H. Sullivan, New York
Arthur Wachtel, Bronx
J. W. Feely, Kings
E. F. Bannigan, Kings
L. F. Rayfiel, Kings

Assembly Committee on Public Health

W. M. Stuart, Steuben,
Chairman
F. A. Gugino, Erie
C. D. Williams, Oneida
J. H. Chase, Cayuga
L. G. Ryan, Clinton
H. J. Tifit, Chemung
J. R. Younglove, FultonHamilton

S. R. Molinari, Richmond T. F. Riley, Monroe W. C. Van Duzer, Orange John Smolenski, Kings D. L. Burrows, New York J. T. McNamara, New York W. E. Cooke, Kings Louis DeSalvio, New York

#### Assembly Committee on Public Relief and Welfare

E. T. Barrett, Suffolk,
Chairman
H. N. Allen, Dutchess
Jane H. Todd, Westchester
L. A. Lawrence, Herkimer
C. D. Williams, Oneida
J. H. Chase, Cayuga
O. M. Brees, Broome

ublic Relief and Welfare
J. W. Ward, Livingston
W. J. Butler, Erie
S. R. Molinari, Richmond
W. T. Andrews, New York
S. J. Jarema, New York
F. G. Morritt, Kings
C. J. Beckinella, Kings
W. J. McCarron, New York

#### EXPERIMENTS WITH TUBERCULOSIS VACCINE

The tubercle bacillus can survive desiccation. Hermetically sealed in glass capsules containing less than one billionth of an atmosphere, the bacillus survived more than one year at body temperature. In this experiment the bacillus was very dry, which may have contributed to its dormancy. Incubated in a partial vacuum, saturated with water vapor, but deprived of oxygen, the bacillus lost all power of growth, even when introduced into the most highly susceptible animal body. The bacillus, so to speak, was asphyxiated, but without loss of antigenic action, as revealed by immunizing animals with avian and human strains of asphyxiated tubercle bacilli.

Preparation of a nonviable asphyxiated tuberculosis vaccine with immunizing power allegedly
superior for laboratory animals to other products is
reported by Potter of the Laboratory of Preventive
Medicine, University of Chicago. Numerous investigators have attempted to obtain a relatively
undenatured tuberculosis vaccine by storing dry
tubercle bacilli at refrigerator temperatures in the
maximum vacuum obtainable with a high grade
mercury pump. Such stored bacilli remain alive
and fully infective for at least two years, presumably because of a nearly complete metabolic standstill caused by absence of moisture and warmth.
In order to kill the bacilli by lack of oxygen, Potter
therefore repeated the tests under conditions that
maintained normal moisture and optimal temperature.

Highly virulent human tubercle bacilli were placed in empty pyrex test tubes together with 0.5 cc. of freshly boiled tap water. The oxygen was then removed in three stages, first by prolonged evacuation with a Hyvac pump, by which the estimated oxygen pressure was reduced to a two-hundredth part of that of the original air. Second, the evacuated tubes were filled and re-xhausted seven times with electrolytic hydrogen, after which lavage only a hundred-thousandth part of the original oxygen remained in the tubes. Finally the residual traces of oxygen and hydrogen were absorbed on powdered palladium sponge. The tubes were then stored in the dark at 38 C.

All organisms from tubes thus prepared and opened between the twentieth and forty-second day

of storage failed to grow when plated on a variety of favorable culture mediums. Five to 10 guineapigs were injected subcutaneously with each asphyxiated sample. Guineapigs injected with the twenty to twenty-five day asphyxiated cultures occasionally developed tuberculosis. All guineapigs injected with cultures asphyxiated for at least thirty days showed no evidence of tuberculosis when killed eight weeks later. Similar results were obtained with asphyxiated highly virulent bovine and avian strains, 6-week old chicks being used as the test animal.

Since tubercle bacilli killed by asphyxiation are presumably less denatured than bacilli killed by heat or chemical antiseptics, it would seem reasonable to hope that asphyxiated vaccines would have immunizing powers superior to those of any other nonviable tuberculosis vaccine thus far tested. A series of rabbits and pigeons were therefore given five subcutaneous injections at five-day intervals of asphyxiated avian tubercle bacilli. The pigeons continued well for seven and one-half months, at which time they were killed, necropsies revealing almost complete disintegration and absorption of the injected vaccine, without active tuberculosis. The rabbits were killed from one year to seventeen months after vaccination, at which time they were also without signs of tuberculosis.

Beginning at four and one-half months after this vaccination, groups of rabbits with an equal number of nonvaccinated controls were tested for acquired immunity by intravenous injection of massive test doses of living avian tubercle bacilli. The vaccinated rabbits developed but one-sixth as many lesions as the controls, and by the end of fifteen months had shown but one-fourth their tuberculosis morality. This degree of postvaccinal immunity is apparently superior to that reported by Opie and Freund following vaccination with heat-killed tubercle bacilli. Potter's tests show that an appreciable degree of the postvaccinal immunity persists for at least a year, with full duration not yet determined. Attempts to improve the nonviable tuberculosis vaccine by adopting methods that would facilitate more rapid interstitial disintegration and absorption of the injected asphyxiated bacilli are now in progress.

—J.A.M.A.

# Medical Legislation

(Bulletin No. 1 issued by the Legislative Bureau of the Medical Society of the State of New York, January 11, 1944)

GREETINGS for the new year! We welcome the opportunity of joining hands with those who have worked with us in previous years and we also welcome the cooperation of the others who for the first time will take over the responsibility of legisla-

tive work.

To those of you who were not fortunate enough to attend the conference of County Society Legislative Chairmen, which was held on December 7 in Albany, we report that on that occasion we discussed the medical features of the Wagner-Murray-Dingell bill. We had Dr. Louis Bauer, chairman of the American Medical Association's Council on Medical Service and Public Relations, outline to us the program of activities which that Council is pledged to carry out during the next year, which, we understand, expects assistance from the county society legislative committees. It will from time to time submit information of things happening in Washington and propose ways in which we can assist him. This is a new activity on the part of the A.M.A., the need of which has been felt for some time.

The Wagner-Murray-Dingell bill, which is the most important measure in Washington at present, is with the Finance Committee in each House. There is no indication that either committee will begin its study very soon. When they do take it up it will, without doubt, be by a subcommittee which will endeavor to secure expressions of opinion as to the relative merits of its sections by conducting a number of hearings in Washington and probably in other sections of the United States. As was pointed out on a previous occasion, the bill is in the nature of an omnibus. Many of its features are already the law of the land. The principal objective of the bill is to unify in a federal measure what already exists in many states and to extend some of the features in some instances. But the medical section is new and it is to this that we especially direct our attention. If you are not clear as to the objectionable features of the bill, we shall be glad to give you the benefit of our study and experience; and, likewise, if you would like to have somebody discuss the bill before your county society, we shall endeavor to assist you on that score. A number of the county society auxiliaries, directed by Mrs. Madden, the State Legislative Chairman, are very helpfully arranging public meetings where the Wagner-Murray-Dingell bill is discussed.

We anticipate a very busy year. The Albany session may be short but it will be, without doubt, fruitful. The Governor has suggested in his introductory message the appointment of a commission to investigate the subject of medical care. There is a commission studying the manner in which the Workmen's Compensation Law is operating. Another commission is studying the condition of the mental hygiene hospitals. The Mailler Long-Range Health Commission is still working, and from some of these we can expect proposed legislation. There will be bills introduced affecting the training and registration of nurses, which may be of vital importance to the physicians.

The chiropractic committee created by the last

Legislature has held a series of hearings and is engaged in preparing a report which it will submit to the Legislature some time next month.

Care of the returning disabled soldiers may

necessitate additional legislation.

All of these things will be considered in the next three months and, in addition, there is an equal number of matters that will come before Congress which will be of equal importance.

We hope that all of the societies have appointed willing workers who will have the time and embrace the opportunity to work with us enthusiastically.

The Assembly has announced its committees and we are listing below the personnel of these with which we usually work. You will find that there are very few changes. The Senate committees will accompany the next bulletin.

#### Bills Introduced

Senate Int. 9—Wicks, creates in the State Education Department a board for licensing and regulating the practice of optical dispensing and appropriates \$10,000. Referred to the Finance Committee.

Assembly Int. 12—Bennison, provides that lien of a hospital on suits, claims, or demands of a person admitted thereto shall be exclusive of personal services rendered by physician or surgeon. Referred to the Judiciary Committee.

Assembly Int. 63—Wright, provides that no State Regent shall be elected to succeed himself unless his previous term of office shall have been less than 5 years. Referred to the Education Committee.

JOHN L. BAUER
WALTER W. MOTT
LEO F. SIMPSON
Committee on Legislation

Joseph S. Lawrence Executive Officer

### Assembly Committee on Codes

H. D. Suitor, Niagara, Chairman G. B. Parsons, Onondaga H. B. Ehrlich, Erie Russell Wright, Jefferson J. D. Bennett, Nassau M. Wilson, Westchester W. B. Mann, Monroe J. F. Wadlin, Ulster
H. O. Catenaccio, New York
L. Farbstein, New York
S. J. Jarema, New York
E. F. Moran, Kings
R. H. Rudd, Kings
I. Dollinger, Bronx
H. D. Coville, Oswego

### Assembly Committee on Insurance

Russell Wright, Jefferson, Chairman H. A. Reoux, Warren W. H. MacKenzie, Allegany J. C. Kreinheder, Erie W. M. Stuart, Steuben J. E. Owens, Westchester R. J. Crews, Kings MacNeil Mitchell, New York R. M. Albee, Sullivan E. F. Moran, Kings G. W. Foy, Albany M. M. Turshen, Kings P. J. Fogarty, Bronx E. I. Hatfield, Dutchess L. F. Rayfiel, Kings

### Assembly Committee on Judiciary

H. A. Reoux, Warren,
Chairman
L. W. Breed, Onondaga
M. Mitchell, New York
R. J. Sherman, Saratoga
A. Schulman, Monroe
C. T. Backus, Otsego
S. F. Wickes, Essex

Itte on Judiciary
J. C. Morgan, Eric
J. F. Bennison, Montgomery
R. Walmsley, Rockland
I. H. Holley, New York
W. T. Andrews, New York
Ralph Schwartz, Kings
P. A. Quinn, Bronx
I. D. Davidson, New York

in Chapter III, Article VI, of the By-Laws of the Bronx County Medical Society; and be it

"Further resolved: That at the termination of the period of emergency as determined by the society, this fund be known as the general fund of the Bronx County Medical Society, to be used for purposes beneficial to the society as determined by two-third vote of the membership pres-

ent at any society meeting; and be it "Further resolved: That the accumulation of the monies for this fund be by a five dollar assessment of each nonmilitary active member of the society, this assessment to be paid with the dues of the

society."

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We believe that the above resolutions represent one of the most sensible gestures made toward postwar planning that we have yet found. It frankly faces a situation that will almost assuredly arise with the termination of the war. Our members who have sacrificed not only the comforts and happiness of civilian life but have risked their lives and future security, will, on their return, encounter very difficult problems, including personal adjustment and economic adjustment. Meetings, speech-making, parades, flag-waving and the streams of confetti may have their places in bestowing recognition to home-coming veterans, but unfortunately they are generally considered out of all rightful proportion to their intrinsic value. Concrete aid in postwar adjustment is the only matter that should concern the intelligent; and doctors should be the first group to promulgate this principle.

It is our opinion that there is not a member of the society who, realizing the sound vision behind this action, will not approve with enthusiasm and with the conviction that he is doing his part in constructive postwar planning for his colleagues now in service.

### Broome County

The following committees of the county society have been appointed: economic committee: Dr. R. W. Rice, chairman, Dr. J. W. Colella, Dr. C. J. Marshall; legislative committee: Dr. G. C. Vogt, chairman, Dr. W. B. Aten, Dr. E. R. Dickson, Dr. C. R. Seymour; library committee: Dr. S. B. Blakely, chairman, Dr. H. W. Davis, Dr. W. H. Hobbs: membership committee: Dr. R. J. Mc. Blakely, chairman, Dr. H. W. Davis, Dr. W. H. Hobbs; membership committee: Dr. R. J. Mc-Mahon, chairman, Dr. J. A. Kalb; milk commission: Dr. P. H. Shaw, chairman, Dr. S. M. Allerton, Dr. H. B. Marvin, Dr. Mary J. Ross; public health committee: Dr. R. M. Vincent, chairman, Dr. W. J. Farrell, Dr. C. J. Longstreet, Dr. S. E. McManis, Dr. Vesta Rogers, Dr. A. J. Stillson; public relations committee: Dr. C. M. Allaben, chairman, Dr. E. R. Dickson, Dr. F. M. Dyer, Dr. E. M. Jones, Dr. G. C. Vogt, Dr. V. M. Maddi, Dr. R. W. Rice, and Dr. J. M. Touhey.

## Cayuga County

The list of officers of the county society is now omplete and is as follows: president—Dr. Harry S. Bull, of Auburn; vice-president—Dr. Clinton E. Goodwin, of Weedsport; secretary—Dr. L. W. Sincerbeaux, of Auburn; and treasurer—Dr. Leonard H. Rothschild, of Auburn; board of censors—Dr. Bernard L. Cullen, Dr. Walter B. Wilson, Dr. G. Perry Ross, Dr. William A. Tucker, and Dr. Jason L. Wiley: delerate to the State and Dr. Jason L. Wiley; delegate to the State

Convention-Dr. Harry Bull; alternate delegate-Dr. Alfred K. Bates; delegate to the seventh District Branch—Dr. A. K. Bates, and alternate delegate—Dr. Raymond F. Johnson.

The committees for the society for 1944 are: public health: Dr. John W. Copeland, chairman, Dr. George B. Adams, Dr. Norman L. Woodford; workmen's compensation: Dr. R. F. Johnson, chairman, Dr. W. B. Wilson, Dr. J. L. Wiley; grievance committee: Dr. B. L. Cullen, chairman, Dr. A. B. Chidester, Dr. H. I. Davenport, Dr. E. J. Kompton: advisory committee to Women's Dr. A. B. Chidester, Dr. H. I. Davenport, Dr. E. J. Kempton; advisory committee to Women's Auxiliary: Dr. Mary W. Kirkwood, chairman, Dr. Lillian A. Treat, Dr. Ila Moser; economics committee: Dr. Louis D. Burlington, chairman, Dr. A. K. Bates, Dr. W. A. Tucker, Dr. F. L. Holcomb; public relations: Dr. A. K. Bates, chairman, Dr. C. W. Bullard, Dr. L. H. Rothschild; cancer control: Dr. G. B. Adams, chairman, Dr. A. K. Bates, Dr. R. F. Johnson; school advisory: Dr. George C. Sincerbeaux, chairman, Dr. B. L. Cullen, Dr. Allan H. Kirkwood; war participation committee: Dr. Raymond F. Johnson, chairman, Dr. Milo L. Seccomb; advisory committee to Dunn and McCarthy: Dr. G. Perry Ross, chairman, Dr. Allan Kirkwood, Dr. W. B. Ross, chairman, Dr. Allan Kirkwood, Dr. W. B. Wilson; committee on service board: Dr. Cornelius F. McCarthy, chairman, Dr. R. F. Johnson, Dr. Leonard W. Sincerbeaux; legislative committee: Dr. C. F. McCarthy, chairman, Dr. A. Spadaro, Dr. F. L. DeFurio; and historian: Dr. G. F. McCarthy. C. F. McCarthy.

### Chautaugua County

Dr. Oscar T. Barber, of Fredonia, was elected president of the Chautauqua County Medical Society at its annual meeting held on December 16 in Jamestown.

Other officers chosen were: vice-president, Dr. M. J. Johnson, of Jamestown; secretary, Dr. Edgar Bieber, of Dunkirk; treasurer, Dr. Clive E. Hallenbeck, of Dunkirk.

A paper was delivered by Dr. Burton M. Shinners.

of Dunkirk.

The county society went on record as opposing the proposed national health insurance bill because it concentrates all practice of medicine and hospital administration in the hands of one person, the surgeon general.\*

#### Erie County

Dr. John D. Naples was elected president of the Medical Society of the County of Erie on December

Other officers elected are: first vice-president, Dr. A. H. Aaron; second vice-president, Dr. Porter A. Steele; secretary, Dr. Louise W. Beamis; treasurer, Dr. Ralph M. DeGraff; public health chairman, Dr. John W. Kohl; legislation chairman, Dr. Edmund A. Machey; economic chairman, Dr. Edmund A. Machey; economic chairman, Dr. Edward G. Winkler; membership chairman, Dr. Arthur F. Glaeser; delegates to the State Convention: Dr. Albert A. Gartner, Dr. Nelson W. Strohm, Dr. John T. Donovan, and Dr. Harold G. Brannie F. Francis F. F. Brown; and board of censors: Dr. Francis E. Fronczak, Dr. Eugene M. Sullivan, Dr. Charles W. Bethune, Dr. Francis J. Bullah, and Dr. Clyde L. Randall.

Dr. Harold Brown, the retiring president, outlined a system recently adopted by the society which has proved its greatest value during the in-

fluenza epidemic.

#### Medical News

#### Chace Reports on Studies of Future Medical Problems

R. ARTHUR F. Chace, president of the New York Academy of Medicine, said at the institution's annual meeting held on January 6 that the Academy was earnestly seeking to anticipate the form of society in which we shall live and was "in the process of adjusting medicine, in its broadest sense, to the new social order."

Studies on these problems, Dr. Chace reported, are being carried out by a special committee on medicine and the changing world order, consisting of fourteen leading physicians and thirty-five leaders of thought in labor, law, social work, nursing,

medical education, dentistry, and public health.
"Our first year of study," he said, "has convinced us that the social pattern of the immediate future will be influenced by planning on the part of the government, industry, labor, and consumers, and that the Academy can and must play an active part in the adjustment of medicine and public health to this new social order.

"An editorial committee, consisting of Dr. Iago Galdston, Mr. Lawrence Frank, and Prof. Bernhard J. Stern, has begun to prepare the committee's final report. This report we hope to have finished during 1944, and it is our expectation that it will offer fundamental data and concrete help toward the solution of the problems in medical service which we in medicine must thoughtfully and courageously face."

The committee on medical education of the Academy, Dr. Chace reported, "is formulating plans for postgraduate education of the wartime graduates in medicine as well as for the thousands." of other physicians who will have been out of civil practice for a number of years.

"The accelerated medical course now being given to thousands of medical students, the cutailment to nine months' duration of hospital internships, the restrictions placed upon residencies and other forms of postgraduate instruction and training, dictated by the demands of the war threaten to unloose upon the public, once the property of the p peace is established, a host of inadequately trained physicians."

In the present and immediate future, he added, the medical men of all the world, and particularly the twenty-one republics of Central and South America and the West Indies, must turn to America, and to a great extent to New York City, for leader-

ship in the medical sciences. In response to a request from a member of the State Grievance Committee, Dr. Chace reported that "a great deal of time has been given to the study of the present law concerning abortions, and suggestions have been made for legislative change which would close the various technical loopholes that have been made use of by those who perform criminal abortions."

#### President Gets Bill to Aid Relocation of Physicians

THE House of Representatives has acted favorably on a measure to pay the moving expenses of civilian physicians and dentists who agree to practice for not less than one year in a community in need of their services. The bill provides for the payment of moving expenses plus a monthly allowance of \$250 for three months.

A community requesting the services of a physician or dentist would be required to pay 25 per cent of the relocation allowance. The relocated physician or dentist must comply with the licensure laws of the state to which he removes.

The bill, which was previously accepted by the Senate, has now gone to the President.

#### County News

Albany County

Dr. Joseph Lawrence, of Albany, Executive Officer of the New York State Medical Society, spoke on "An Analysis of the Wagner-Murray-Dingell Bill" at the January meeting of the Delmar Progress Club in Albany.'

Bronx County

A regular meeting of the county society was held

on January 19. Following an executive session Dr. Nathan B. Van Etten spoke on "The Social Responsibility of the Doctor.'

#### When It's All Over-What?

The following resolutions were drawn up by the Medical Economics Committee, approved by the Comitia Minora, and presented at the October

\* Asterisk indicates that item is from a local newspaper.

meeting of the society with the direction that they be published in the Bulletin before being introduced They were for action at the December meeting. passed at the meeting held on January 19.

"WHEREAS: One-third of the membership of the Bronx County Medical Society has joined the armed forces of the United States; and

"WHEREAS: They have done this in the spirit of patriotism regardless of economic and social sacrifices; and

"WHEREAS: The Bronx County Medical Society in recognition of these patriotic duties and sacrifices desires to be in a position to aid these members toward re-establishing their private practice in the postwar period of readjustment; therefore be it

"Resolved: That the Bronx County Medical Society establish a fund to be known as the Postwar Emergency Loan Fund, this fund to be administered by the Loan Committee as set forth

In 1931 he returned to England and worked as clinical assistant in the Hospital for Sick Children, the Royal Chest Hospital, and the nose and throat department of St. Bartholomew's, before taking up full-time work in psychological medicine at the Maudsley Hospital.

Dr. George B. Dorff, Brooklyn specialist in glandular disturbances, has been re-elected president of the East New York Medical Society.

Dr. Dorff is in his second term as the society's president. He has charge of the children's endocrine clinic at Bellevue Hospital and is also associated with Beth-El Hospital, Brooklyn. Trustees of the society who were re-elected are Dr. Morris Ant, Dr. William Levine, and Dr. Hyman Teperson.

More than a third of the society's 400 members are now in uniform. Others are cooperating with Selective Service officials as examining physicians. A speakers' bureau is maintained in the East New York, Bedford, and Brownsville districts. The speakers accept invitations to talk before fraternal and civic groups on health problems.

The 598th regular meeting of the Society of Medical Jurisprudence was held at the New York

Academy of Medicine on January 10.

The program of the evening was as follows: address of the retiring president, "Remarks on the trend and the Progress of the Society's Activities, by Gustave J. Noback, M.A., Ph.D.; address of the incoming president, "I Wonder Why—The Mysteries of Science," by Gustavus T. Kirby. E.E., LL.B., M.P.E.; "Military Tropical Medicine," by Anthony Bassler, M.D., F.A.C.P., LL.D.; and a sound film in color on "Amebiasis," produced by the National Gastroenterological Association the National Gastroenterological Association.

A combined meeting of the Eastern Section of the American Trudeau Society and the Tuberculosis Sanatorium Conference of Metropolitan New York was held on Friday, January 21, at the Hotel Pennsylvania, in New York City.

Pennsylvania, in New York City.

Topics discussed at the morning session included:
Fluorescence Microscopy of the Tubercle Bacillus;
The Fate of Infants or Very Young Children with
Tuberculosis; and X-Ray Studies of Atypical
Pneumonia. During the afternoon session, the
subjects for discussion were: Coexisting Syphilis
and Tuberculosis in the Negro; Tuberculous
Bronchitis; and Indications and Risks Involved
in Pulmonary Beaution for Pulmonary Tuberin Pulmonary Resection for Pulmonary Tuber-The evening session at 7:30 P.M., was devoted to a symposium and panel discussion on

"Dust Inhalation Diseases of the Lungs."
Mr. David R. Lymn, Gaylord Farm Sanatorium, Wallingford, Conn., was the speaker at the luncheon rainingtord, Conn., was the speaker at the luncheon session. The speakers at the other sessions were: Dr. J. Burns Amberson, Visiting Physician-In-Charge, Chest Service, Bellevue Hospital; Dr. Leopold Brahdy, Physician-In-Charge of Occupational Diseases of Employees of the City of New York, and Dr. Andre F. Cournand, Assistant Professor of Medicine, Columbia University College of Physicians and Surgeons: Dr. Clarence F. Gralessor of Medicine, Columbia University College of Physicians and Surgeons; Dr. Clarence F. Graham, Herman Biggs Memorial Hospital, Ithaca N. Y.; Dr. Leonard Greenburg, Executive Director, Division of Industrial Hygiene, New York State Department of Health; Dr. Reuben Hoffman, Maryland Tuberculosis Sanatorium, Henrytown, Maryland; Dr. Foster Murray, Director of

Tuberculosis Service, Kingston Avenue Hospital, Brooklyn; Dr. Richard H. Overholt, Brookline, Massachusetts; Dr. H. McLeod Riggins, Medical Director, Triboro Hospital; Dr. E. C. Showacre, Cornell University, Ithaca; and Dr. Henry S. Willis, William H. Maybury Sanatorium, North-ville, Michigan.

#### Herkimer County

At a meeting of the county society held in Herkimer on December 14, 1943, officers were elected as mer on December 14, 1943, officers were elected as follows: president, Dr. Dominick F. Aloisio, Little Falls; first vice-president, Dr. F. M. Neuendorf, Mohawk; second vice-president, Dr. B. J. Kelly, Frankfort; third vice-president, Dr. Charles Lanning, Herkimer; librarian, Dr. G. S. Eveleth, Little Falls; secretary, Dr. Fred C. Sabin, Little Falls; treasurer, Dr. Albert L. Fagan, Herkimer; board of censors: Dr. F. H. Moore, Dr. Sabin, Dr. Harold Buckbee, Dr. H. J. Sheffield, and Dr. C. C. Whittemore

Dr. Aloisio was named delegate to the State Medical Society meeting to be held in New York in May, and Dr. Neuendorf, was chosen first alter-

nate delegate.

The executive committee named by Dr. Aloisio is headed by Dr. B. G. Shults, the retiring president. Other members are Dr. F. H. Moore, Dr. L. P. Jones, Dr. George J. Frank, Dr. Sabin, and Dr. A. B. Santry.

Dr. George S. Eveleth, Little Falls, one of the oldest practicing physicians in Herkimer County, read a paper at the meeting. His topic was "Medi-

cine in Retrospect Over Fifty-five Years."

Hans A. W. Kotrnetz, M.D., and his wife,
Margarete E. Kotrnetz, M.D., have made Herkimer their home and their application to transfer their membership from Otsego County to Herkimer County Society was approved. These physicians have recently been granted their citizenship and, at their request, have been listed as available for military service with the Procurement and Assignment Service.—FRED C. SABIN, M.D., Secretary.

#### Lewis County

The following officers for the county society have been elected for the year 1944: president—Dr. David J. O'Connor, of Croghan; vice-president Dr. Edgar O. Boggs, of Lowville; and secretary-treasurer—Dr. Harry E. Chapin, of Lowville. The censors are: Dr. Bruce M. Phelps, Dr. H. E. Chapin, and Dr. Gregori O. Volovic, all of Lowville. The delegate to the State Society is Dr. Thomas A. Lynch, of Lowville. The committee on Legislation consists of Dr. D. J. O'Connor, Dr. B. M. Phelps, and Dr. H. E. Chapin. Members of the committee on Public Health are Dr. Thomas Lynch, Dr. D. J. O'Connor, and Dr. Rudmin. Other committees are: the subcommittee on industrial health: Dr. D. J. O'Connor and Dr. H. E. Chapin; committee on school health: Dr. B. M. Phelps and Dr. Thomas Lynch; subcommittee on tuberculosis: Dr. B. M. Phelps.

#### Livingston County

Members of the Livingston County Medical Society met for their annual meeting at the Big Tree Inn, Geneseo, Monday evening, December 20 for dinner.

Dr. Earle B. Mahoney, assistant professor of surgery at the University of Rochester, addressed the members on the topic of "The Treatment of

A list of physicians who have signified their willingness to accept new patients and a list of doctors who will make night calls on these patients have been compiled by the economic and public relations committees. Anyone desiring to obtain the names of doctors in his neighborhood who are available for such calls may contact the medical society office during the day or the Nurses Official Registry at night.\*

At a stated meeting of the Buffalo Academy of Medicine, held in January 12 at the Hotel Statler, Dr. Philip Levine, of New York City, spoke on "The Clinical Importance of Isoimmunization by the Rh Factor."

Discussion of the paper was given by Dr. Douglas P. Arnold, of Buffalo, Dr. William J. Orr, of Buffalo,

and Dr. Louis A. Siegel.

Dr. Levine has done much experimental research on the Rh factor, particularly in connection with fetal erythroblastosis, and the practical application of his findings has been of significance in determining the pathogenesis of this disease.

The next meeting of the Academy will be held

Wednesday, February 9.

Appointment of Dr. Grant L. Rasmussen as associate professor of anatomy in the School of Medicine of the University of Buffalo has been announced by Chancellor Samuel P. Capen.

Dr. Rasmussen, graduate of the University of Minnesota, has been on the faculty of the University of South Carolina Medical School since 1934 and has been assistant professor of anatomy there since 1940.

Dr. Harvey P. Hoffman, Buffalo physician, was appointed lecturer in medical economics. Hoffman, who received his medical degree in 1914 from the University of Illinois, is a past-president

of the Eric County Medical Society.

Fifty-eight men and women received medical degrees from the University of Buffalo at its special medical commencement on December 29. The commencement at which Dr. James E. King, physician and gynecologist, gave an address entitled "Medicine Looks Ahead," was the ninety-eighth for the School of Medicine.

The exercises were the first since Army and Navy training units were established at the school. Of the graduates, 46 were commissioned first lieutenants in the Army Medical Officers Reserve Corps and 6 were commissioned lieutenants (junior grade) in the Naval Reserve. They will remain on inactive status until they complete their internation.\*

ships.

Franklin County

Major Bruno S. Harwood, former nose and throat specialist in Saranac Lake, who has been with the armed forces at Camp Sutton, S.C., has returned to Saranac Lake after having received a discharge from the Army after three years' service. He is planning to resume practice.\*

Fulton County

The following is a list of physicians who are officers of the county society for 1944: presidentMorris Kennedy, vice-president—John F. Samo, secretary—Louis Tremante, and treasurer—Avery H. Sarno; board of censors-Matthias F. Donnelly, chairman, Frank G. Calder, and Walter R Grunewald; delegate to the State Convention-S. C. Clemans; alternate delegate to the State Convention—Arthur R. Wilsey.

The following doctors have been appointed to committees by Dr. Kennedy for the year 1941: public health—R. L. Ellithorpe, W. R. Grunewald. B. E. Chapman; compensation—H. B. Riggs, Claude Bledsoe, B. A. Winne; program—D. Battaglia, W. F. Hesek, J. F. Sarno, Claude Bledsoe, S. L. Russell, A. Goodwin; economics-A. H Sarno; medical service and public relations—B G. McKillip, H. H. Oaksford, V. R. Ehle, S. C. Clemans, M. F. Donnelly; legislative—S. C. Clemans, S. J. Colton, F. G. Calder; Woman's Auxilian,—E. N. Perkins, B. G. McKillip, V. R. Ehle, cancer—W. J. Kennedy, E. G. Gilmore, H. C. Denham; entertainment, H. H. Oaksford, M. F. Donnelly, J. Shannon, K. Durand; war participation—H. C. Denham, L. Tremante, A. H. Sarno.

#### Genesee County

Dr. I. A. Cole, of Batavia, is the new president of the Genesee County Medical Society, succeeding

Dr. Ward B. Manchester, of Batavia.

Dr. Paul P. Welsh, of Le Roy, has been named vice-president in Dr. Cole's place and Dr. Peter J. Di Natale, of Batavia, was again chosen secretary and trensurer. Dr. Di Natale was named delegate to the New York State Medical Society for the next two years with Dr. C. C. Koostones elternate. next two years, with Dr. C. C. Koester as alternate.

#### Greater New York

New Yorkers had their first opportunity to hear an authoritative account of the treatment of nar neurosis in Britain on January 3, when Dr. Walter S. Maclay, noted British psychiatrist, addressed an open meeting jointly sponsored by the Kings County Medical Society, the Brooklyn Chapter of the American Red Cross, and the Brooklyn Council for Sociel Planning, Mortimer Brenner. Council for Social Planning. Mortimer Brennet, chairman of the Brooklyn Council for Social Plan-

Dr. Maclay, now in the United States on the invitation of the American Psychiatric Association, ning, presided. is medical superintendent of the Mill Hill Emergency Hospital in London. This hospital, built originally for air raid casualties, is now devoted

entirely to the treatment of neurosis.

Dr. Maclay's lecture was illustrated by the showing of a technical film which portrays the organization and working of the Emergency Medical Service neurosis center. His talk covered the effect of bombing on the civilian population and on children, the effects of evacuation on children, and other problems created by war developments.

Dr. Maclay holds appointments as physician in psychological medicine to the West London Hospital and to the King George Hospital at Illord He was physician to the outpatient department of Maudsley Hospital, which was closed at the outpreak of war, half of its staff forming the nucleus of the staff of Mill Hill.

Born in 1901, son of the first Baron Maclay, Dr. Maclay was educated at Fettes College, Edinburgh, St. John's College, Cambridge, and at St. Bartholomew's Hospital, London. He then worked as house physician and house surgeon in Glasgow for one year, and spent three years in native hospitals in East, South, and Central Africa.

In 1931 he returned to England and worked as clinical assistant in the Hospital for Sick Children, the Royal Chest Hospital, and the nose and throat department of St. Bartholomew's, before taking up full-time work in psychological medicine at the Maudsley Hospital.

Dr. George B. Dorff, Brooklyn specialist in glandular disturbances, has been re-elected president of the East New York Medical Society.

Dr. Dorff is in his second term as the society's president. He has charge of the children's endocrine clinic at Bellevue Hospital and is also associated with Beth-El Hospital, Brooklyn. Trustees of the society who were re-elected are Dr. Morris Ant, Dr. William Levine, and Dr. Hyman Teperson.

More than a third of the society's 400 members are now in uniform. Others are cooperating with Selective Service officials as examining physicians. A speakers' bureau is maintained in the East New York, Bedford, and Brownsville districts. The speakers accept invitations to talk before fraternal and civic groups on health problems.

The 598th regular meeting of the Society of Medical Jurisprudence was held at the New York

Academy of Medicine on January 10.

The program of the evening was as follows: address of the retiring president, "Remarks on the trend and the Progress of the Society's Activities,' by Gustave J. Noback, M.A., Ph.D.; address of the incoming president, "I Wonder Why—The Mysteries of Science," by Gustavus T. Kirby, E.E., LL.B., M.P.E.; "Military Tropical Medicine," by Anthony Bassler, M.D., F.A.C.P., LL.D.; and a sound film in color on "Amebiasis," produced by the National Gastroepterological Association the National Gastroenterological Association.

A combined meeting of the Eastern Section of the American Trudeau Society and the Tuberculosis Sanatorium Conference of Metropolitan New York was held on Friday, January 21, at the Hotel Pennsylvania, in New York City.

Topics discussed at the morning session included: Fluorescence Microscopy of the Tubercle Bacillus; The Fate of Infants or Very Young Children with Tuberculosis; and X-Ray Studies of Atypical Pneumonia. During the afternoon session, the subjects for discussion pages. Convicting Symbilis subjects for discussion were: Coexisting Syphilis and Tuberculosis in the Negro; Tuberculous Bronchitis; and Indications and Risks Involved in Pulmonary Resection for Pulmonary Tuber-culosis. The evening session at 7:30 p.m., was devoted to a symposium and panel discussion on "Dust Inhalation Diseases of the Lungs."

Mr. David R. Lymn, Gaylord Farm Sanatorium, Wallingford, Conn., was the speaker at the luncheon Dr. J. Burns Amberson, Visiting Physician-In-Charge, Chest Service, Bellevue Hospital; Dr. Leopold Brahdy, Physician-In-Charge of Occupational Diseases of Employees of the City of New York, and Dr. Andre F. Cournand, Assistant Professor of Medicine. Columbia University College fessor of Medicine, Columbia University College lessor of Medicine, Columbia University College of Physicians and Surgeons; Dr. Clarence F. Graham, Herman Biggs Memorial Hospital, Ithaca N. Y.; Dr. Leonard Greenburg, Executive Director, Division of Industrial Hygiene, New York State Department of Health: Dr. Reuben Hoffman, Maryland Tuberculosis Sanatorium, Henrytown, Maryland; Dr. Foster Murray, Director of

Aubertonosis Service, Mingston Avenue Hospital, Brooklyn; Dr. Richard H. Overholt, Brookline, Massachusetts; Dr. H. McLeod Riggins, Medical Director, Triboro Hospital; Dr. E. C. Showacre, Cornell University, Ithaca; and Dr. Henry S. Willis, William H. Maybury Sanatorium, Northville, Michigan. Tuberculosis Service, Kingston Avenue Hospital,

#### Herkimer County

At a meeting of the county society held in Herkimer on December 14, 1943, officers were elected as follows: president, Dr. Dominick F. Aloisio, Little Falls; first vice-president, Dr. F. M. Neuendorf, Mohawk; second vice-president, Dr. B. J. Kelly, Frankfort; third vice-president, Dr. Charles Lanning, Herkimer; librarian, Dr. G. S. Eveleth, Little Falls; secretary, Dr. Fred C. Sahin Little Falls; Falls; secretary, Dr. Fred C. Sabin, Little Falls; treasurer, Dr. Albert L. Fagan, Herkimer; board of censors: Dr. F. H. Moore, Dr. Sabin, Dr. Harold Buckbee, Dr. H. J. Sheffield, and Dr. C. C. Whitte-

Dr. Aloisio was named delegate to the State Medical Society meeting to be held in New York in May, and Dr. Neuendorf, was chosen first alter-

nate delegate.

The executive committee named by Dr. Aloisio is headed by Dr. B. G. Shults, the retiring president. Other members are Dr. F. H. Moore, Dr. L. P. Jones, Dr. George J. Frank, Dr. Sabin, and Dr. A. B. Santry.

Dr. George S. Eveleth, Little Falls, one of the oldest practicing physicians in Herkimer County, read a paper at the meeting. His topic was "Medicine in Retrospect Over Fifty-five Years."

Hans A. W. Kotrnetz, M.D., and his wife, Margarete E. Kotrnetz, M.D., have made Herkimer their home and their application to transfer their membership from Otsego County to Herkimer County Society was approved. These physicians have recently been granted their citizenship and, at their request, have been listed as available for military service with the Procurement and Assignment Service.—Fred C. Sabin, M.D., Secretary.

#### Lewis County

The following officers for the county society have been elected for the year 1944: president—Dr. David J. O'Connor, of Croghan; vice-president Dr. David 3. O Collind, of Crognan, Vice-president —Dr. Edgar O. Boggs, of Lowville; and secretary-treasurer—Dr. Harry E. Chapin, of Lowville. The censors are: Dr. Bruce M. Phelps, Dr. H. E. Chapin, and Dr. Gregori O. Volovic, all of Lowville. The delegate to the State Society is Dr. E. O. Boggs, and the alternate delegate is Dr. Thomas A. Lynch of Lowville. The committee Thomas A. Lynch, of Lowville. The committee on Legislation consists of Dr. D. J. O'Connor, Dr. B. M. Phelps, and Dr. H. E. Chapin. Members of the committee on Public Health are Dr. Thomas Lynch, Dr. D. J. O'Connor, and Dr. Rudmin. Other committees are: the subcommittee on industrial health: Dr. D. J. O'Connor and Dr. H. E. Chapin; committee on school health: Dr. B. M. Phelps and Dr. Thomas Lynch; subcommittee on tuberculosis: Dr. B. M. Phelps.

#### Livingston County

Members of the Livingston County Medical Society met for their annual meeting at the Big Tree Inn, Geneseo, Monday evening, December 20 for dinner

Dr. Earle B. Mahoney, assistant professor of surgery at the University of Rochester, addressed the members on the topic of "The Treatment of

Burns and Experiences at the Cocoanut Grove Disaster."

Dr. Glenn J. Doolittle, of Sonyea, was re-elected president of the society; Dr. Howard Schneckenburger, of Nunda, vice-president; Dr. Foster Hamilton, of Hemlock, secretary and treasurer.

#### Monroe County

Lt. Comdr. Richard A. Cupaiuoli, (MC), USNR Sampson, spoke on December 21 at the one hundred and twenty-third annual meeting of the Medical Society of the County of Monroe. His subject was "Problems of Medical Officers of the Navy in Amphibious Operations." Other speakers included Miss Veronica Maher, executive director, American Red Cross; Alvah G. Strong, Food Panel, OPA; and officers of the Medical Society of the State of Committee chairmen presented their New York. annual reports. Dinner at the Rochester Academy of Medicine at 6:30 P.M. was followed by the program at 8:30 P.M.

On December 21 two Rochester physicians watched the christening of a Liberty Ship named for their late friend, Sir Frederick Banting, of Toronto, Canada, who collaborated in the discovery of insulin.

They were Dr. John R. Williams, chairman of the ship's sponsoring committee, and Dr. George H. Whipple, who joined other prominent medical men from all parts of the United States and Canada at the launching exercises at the Bethlehem-Fairchild shipyard in Baltimore.

Lady Banting, widow of the Canadian doctor who was killed in an airplane accident over New-foundland in 1941, christened the vessel. She is a fifth-year medical student at the University of Toronto, where her husband conducted his research, and a member of the Canadian Women's Corps.

Guests included Leighton G. McCarthy, Canadian ambassador to the United States; Dr. Philip Bard, president of the American Physiological Society; Dr. Ian Urquhart of the University of Toronto, and other leaders in education, medical, and diplomatic circles.\*

Montgomery County

The following is the list of officers elected at the annual meeting of the Medical Society of the County of Montgomery; these were elected on Dec. 14, 1943, and to serve for the year 1944: president—Dr. C. Armstrong Spence, of Amsterdam; vice-president—Dr. James A. Dickson, of Amsterdam; treasurer—Dr. Melvin T. Woodhead of Amsterdam; and secretary-Dr. Stella Partyka, of Amsterdam.

The delegate to the Medical Society of the State of New York is Dr. Robert C. Simpson, of Amsterdam, and the alternate delegate is Dr. Patrick J. Fitzgibbons of Amsterdam. The delegate to the Fourth District Branch is Dr. P. J. Fitzgibbons.

Nassau County

J. Louis Neff, of Garden City, veteran executive secretary of the Nassau Medical Society, who retired on December 31 to become executive director of the American Society for the Control of Cancer, was feted at the annual dinner of the medical society in the Wheatley Hills Golf Club on December 15.

The affair was a surprise to Mr. Neff, who had

expected the usual entertainment and speaking which has been traditional with society members.

One of the largest turnouts of members in recent years appeared to pay their respects to Mr. Nefi. He was presented with several pieces of matched luggage by the society officers and the Nassau County Cancer Committee, in addition to a check by society members.

Presentations were made by Dr. Arthur. C. Martin, past-president, for the past-presidents and members, and by Dr. Eugene Coon for the

cancer committee board.

Mr. Neff has been secretary of the society for nearly twenty years, and secretary of the Cancer Committee since it was organized. Mrs. Martha T. Ackerson, a member of the society's office staff, will take over Mr. Neff's duties as business manager for the society.\*

#### New York County

The following New York physicians are officers of the newly formed American Academy of Allergy: Robert Chobot, president; Will C. Spain, secretary; Robert A. Cooke, executive committeeman.

Dr. Walter B. Cannon, physiologist, for forty-five years associated with Harvard University, has joined the faculty of the New York University College of Medicine as a visiting professor, it was announced recently.

Mrs. Albert D. Lasker, of New York City, and Dr. George H. Preston, of Baltimore, State Commissioner of Mental Hygiene in Maryland and president of the American Orthopsychiatric Association, have been elected to the board of directors of the National Committee for Mental Hygiene, 1790 Broadway, it was announced by Orlando B. Willcox, chairman of the board.

Niagara County

Dr. Grant Guillemont was elected president of the county society at the annual organization meet-

of the society.

Others elected at the meeting were Dr. William Mathews, vice-president; Dr. Charles M. Brent, secretary, and Dr. George Stoll, treasurer.

Named to the board of censors of the society are Drs. Roy Wixson, of Niagara Falls, R. R. B. Fitzgerald, of Lockport, and Robert Reagan, of

North Tonawanda. Committee chairmen include Dr. Reagan, legislation; Dr. Joseph P. LaDuca, education and public health; Dr. William Peart, Sanborn, economics and medical education; Dr. H. U. Cramer, compensation, and Dr. Harry C. Dumville, war prepared

paredness. Dr. Guy S. Philbrick and Dr. Peart were named delegates to the annual convention of the New York State Medical Society.\*

Oneida County

Dr. A. DeWitt Brown, former Albany surgeon,

has opened an office in New Hartford. He is a graduate of Union College and Albany Medical College. He served his internship at the Albany Hospital and for six months was resident physician in anesthesia there. Until recently he was associated with Dr. Frank C. Maxon, Jr., Coeymans, as assistant.

Dr. Brown is a member of the American Society of Anesthetists and a diplomat of the National

Board of Medical Examiners.

Mrs. Brown, formerly Dr. Esther Moeller, also a graduate of Albany Medical College and a diplomat of the National Board of Medical Examiners, served her internship at the Memorial Hospital, Albany. At present she is serving an assistant residency in pathology at the Albany Hospital and will be there until July 1. After that date she will join her husband in the practice of medicine in New Hartford.\*

#### Onondaga County

A joint meeting of the county society and the Syracuse Academy of Medicine was held in the University Club in Syracuse on January 4.

The program featured an address by the retiring president of the Academy, Dr. J. G. Fred Hiss, and "Meningitis in Syracuse During 1943," by Dr. A. Clement Silverman, with the discussion opened by Dr. O. W. H. Mitchell.

#### Putnam County

Drs. Charles L. Fox, Jr., and Camille K. Cayley participated in a symposium on "Progress in Chemotherapy" held by the Putnam County Medical Society at Carmel, New York, on January 5.

#### Richmond County

Dr. Edward D. Wisely, of St. George, Staten Island. has left for Marietta, Georgia, to join the medical staff of the Bell Aircraft Corporation. He will be one of the examining physicians.

In accepting the position with the Bell Corporation, Dr. Wisely suspends a practice that has continued for more than forty-five years. He is said to be one of the oldest practicing physicians on the Island, of which he is a native.

He is also one of the oldest members of the Richmond County Medical Society, which for twenty-five years he served as secretary and treasurer.

For more than twenty years he was connected with the City Health Department, holding the office of deputy commissioner in charge of Richmond Borough. He retired in 1917.

Chosen president of the Alumni Association of the Class of 1896 of the College of Physicians and Surgeons of Columbia University many years ago,

he still holds this office.

"For a long time I have been trying to get into war work and at last the opportunity has presented itself," he said. "I'll be able to do my bit for my country through the Bell Corporation."\*

#### Saratoga County

The Saratoga County Medical Society re-elected the following officers at its annual meeting held October 14, 1943: president, Dr. Mark D. Duby, Schuylerville; vice-president, Dr. Frederick G. Eaton, Saratoga Springs; secretary, Dr. Malcolm J. Magovern, Saratoga Springs; treasurer, Dr. W. John Maby, Mechanicville. The delegate to the State Society is Dr. G. Scott Towne, of Saratoga Springs; the alternate is Dr. John R. MacElroy, of Jonesville.

#### Schenectady County

The following officers have been elected by the Schenectady County Medical Society for the year 1944: president, Dr. Charles F. Rourke; vice-president, Dr. Glen Smith; secretary, Dr. Nelson H. Rust; treasurer, Dr. Alfred Grussner; delegate to the State Society, Dr. Joseph H. Cornell; alter-

nate, Dr. Harry Reynolds; board of censors: Dr. William Fodder, Dr. Harry Reynolds, Dr. James York; delegate to the Fourth District Branch, Dr. B. L. Vosburgh; alternate, Dr. James Blake.

Standing committees of the county society for 1944 are: hearing committee, Dr. Edward B. O'Keefe, chairman; personal property committee, Dr. William J. Jameson, chairman; research committee, Dr. William E. Gaseley, chairman; ophthalmia committee, Dr. William C. Ostrom, chairman; sick committee, Dr. Ralph D. Reid, chairman; photographic committee, Dr. Ellis Kellert, chairman; photographic committee, Dr. Charles W. Woodall, chairman; medical advisory committee to the County Welfare Unit, Dr. Charles F. Rourke; program committee, Dr. James M. Blake, chairman; public health committee, Dr. John H. Collins, chairman; public relations committee, Dr. Gomer Richards, chairman; library committee, Dr. Judson B. Gilbert, chairman; war participation committee, Dr. Frank L. Sullivan, chairman; medical relief committee for doctors in service, Dr. William L. Fodder, chairman; entertainment committee, Dr. D. Glen Smith, chairman; medical economics committee, Dr. Beverly L. Vosburgh, chairman; advisory committee to Woman's Auxilliary, Dr. Joseph H. Cornell, chairman; maternal welfare committee, Dr. William M. Mallia, chairman; gasoline grievance committee, Dr. Charles E. Wiedenman, chairman; compensation committee, elective.

The regular monthly meeting of the county society was held in the Ellis Hospital Library on January 11 at 8:30 P.M.

The speaker was Dr. Lawrence A. Kohn, associate professor of medicine at the University of Rochester and attending physician at Strong Memorial Hospital in that city. His subject was "Clinical Aspects of Atypical Pneumonia."

The discussions were by Dr. Garrett Clowe and

Dr. Harry Reynolds.

#### Sullivan County

The following is the list of officers of the county society for 1944: president, Dr. R. S. Breakey, Monticello; vice-president, Dr. Nathan Nemerson, Monticello; secretary and treasurer, Dr. Deming S. Payne, Liberty; board of censors: Dr. Jacob Kornblum, Monticello; Dr. Morris A. Cohn, Monticello; Dr. Cornelius Duggan, Bethel; Dr. Luther F. Grant, Liberty; Dr. William Fernhoff, Woodridge; Workmen's Compensation Committee, Dr. Harry Golembe and Dr. George Seiken, and alternates, Dr. Louis Launer, and Dr. Alfred Hesse; delegates to the State Convention, Dr. B. Abramowitz, Monticello; alternate, Dr. L. F. Grant, Liberty.

#### Washington County

The officers of the county society for the year 1944 are as follows: president, Dr. Roy E. Borrowman, Fort Edward; vice-president, Dr. Zenas V. D. Orton, Salem; secretary, Dr. Denver M. Vickers, Cambridge; treasurer, Dr. Charles A. Prescott, Hudson Falls; delegate to the State Convention, Dr. Denver M. Vickers; board of censors: Drs. Charles H. Holmes, Walter S. Bennett, and John L. Byrnes; committee on farm security administration: Drs. Byron C. Tillotson, Irwin V. Decker, and Dougald F. Macarthur; committee on legislation, Dr. Walter A. Leonard, chairman; com-

mittee on public relations, Dr. Michael A. Rogers, chairman; war participation committee, Drs. Edward V. Farrell, R. E. Borrowman, and Samuel Pashley, Jr.

#### Westchester County

A regular meeting of the county society was held

on January 18 at 8:30 r.m. at the Westchester Division of the New York Hospital, in White Plains.

"Public Health in Wartime" was the title of an address given by Dr. Edward S. Rogers, of Albany, Assistant Commissioner of the New York State Department of Health.

#### Deaths of New York State Physicians

Age	Medical School	Date of Death	Residence
70	Buffalo	March 17	Buffalo
65	Cornell	January 9	Albion
<b>52</b>	McGill	January 6	Manhattan
55	Harvard .	January 9	Rochester
50	Ecl. Cincinnati	October 12	Brooklyn
57	Tufts	January 11	Pleasantville
83	Cleveland	December 19	Macedon
79	Hahne., Chicago	December 12	Bronx
71	P. & S., N.Y.	January 9	Manhattan
41	Vienna	January 6	Woodside
85	N.Y. Univ.	January 8	Manhattan
	70 65 52 55 50 57 83 79 71	Age Medical School 70 Buffalo 65 Cornell 52 McGill 55 Harvard 50 Ecl. Cincinnati 57 Tufts 83 Cleveland 79 Hahne., Chicago 71 P. & S., N.Y. 41 Vienna	Age Medical School Date of Death  70 Buffalo March 17  65 Cornell January 9  52 McGill January 6  55 Harvard January 9  50 Ecl. Cincinnati October 12  57 Tufts January 11  83 Cleveland December 19  79 Hahne., Chicago December 12  71 P. & S., N.Y. January 9  41 Vienna January 6

#### BRITISH AND AMERICAN MEDICINE YESTERDAY

A writer in the Edinburgh Review in 1820 concluded an article on American medical statistics with a series of rhetorical questions: "In the four quarters of the globe, who reads an American book? or goes to an American play? or looks at an American picture or statue? What does the world yet owe to American Physicians or Surgeons?"

These questions reflected the European attitude toward the United States not merely during the beginning of the last century but well into this,

To these slights Nathaniel Chapman answered in a characteristically American manner. In that same year he brought out a journal which was the precursor of the present American Journal of the Medical Sciences, and the title-page of the journal carried as its motto the quotation from the Edinburgh Review. No love was lost between the two English-speaking branches of medicine. Chapman, in 1824, pointed out the "impertinence and presumption" of English critics. He claimed that a particular technic for the treatment of stricture of the urethra, said to have been first described by an English surgeon, was in fact described by an American the year before. Contemporary English medical literature provided Chapman with full opportunities for questioning English gentility. Thomas Wakley, founder of the Lancet, used choice descriptions such as "bats," "owls," "cocksparrows," and "ninny-hammers" for prominent British practitioners, and these appellations were

matter that American critics were unlikely to

Minor events, such as the exploits of John St. John Long, a brilliant charlatan who imposed on pre-Victorian society, were further grist to the American mill. Streaks of sanity did, however, occasionally break through on both sides. Wakley, in 1831, could praise the American Journal of the Medical Sciences as being "in most respects superior to the great majority of European works of the same description"; and an American editor in 1846 could make the common-sense observation, "Where is the American who would not be pleased, nay gratified, to see his works republished, with or without annotations, in Great Britain?" None the less, the dreary game of fault-finding went on throughout the century, charges of ignorance and incompetence being apparently one of the main items of trade between the two countries.

One of the earliest signs that this unedifying futility was subsiding was a comment in the British Medical Journal in 1883. "Medical journalism in America shows great activity," it says, and speaks approvingly of a series of American publica-

In retrospect the Anglo-American hostility, as reflected in medical literature, had little to justify itself, and the conflict has ceased to have any meaning to the present generation, for the conditions from which it arose have long ago disappeared.—Bril. M.J.

#### Hospital News

#### Improvements

St. Elizabeth Hospital has purchased in Utica a tract of land which adjoins the hospital grounds and is nearly 100 feet wide and 665 feet in depth. It was the only remaining vacant land adjoining the hospital grounds and by its acquisition the hospital has completed its site so that it now owns approximately eighteen acres.\*

2

The construction of twenty-seven new buildings, now in progress, on a twenty-five-acre tract adjoining the present site of the Staten Island Area Hospital at New Dorp Beach, will more than double the capacity of that institution, according to an announcement by the Second Service Command.

announcement by the Second Service Command.

The new Army hospital occupies buildings formerly occupied by Seaside Hospital, which were built in 1887 on grounds acquired eight years before by St. John's Guild, a charitable organization. In 1940 the hospital entered an agreement with the New York Society for Relief of the Ruptured and Crippled under which the society operated the institution for children convalescing from orthopaedic disorders.

The War Department took over the institution in October, 1942, re-equipped it completely, and began a series of extensive alterations, among which were new plumbing and electrical systems, painting, and the enclosure of porches. Barracks and officers' quarters were built for the hospital personnel. The hospital began admitting soldier-patients from the metropolitan area two months ago.

Col. Ralph L. Cudlipp, Medical Corps, Regular Army, is commanding officer, in charge of the hospital's detachment of officers, nurses, and en-

The twenty-seven new buildings are expected to be completed in January. These include barracks, offices, warehouses, an orthopaedic shop, laboratories, day rooms, and a motor pool as well as hospital wards. In order to build these structures, the twenty-five-acre tract first had to be cleared. Among the buildings that were razed to make way for the new hospital was Mandia's Hotel, formerly

known as the George Munger Hotel.

The new hospital gives full medical service, including acute medicine, surgery, x-ray, laboratory. complete dental service, and all other advanced hospital procedures. Its location on the sandy, wind-swept Lower Bay is reported ideal for convalescence.\*

The Lincoln League of Watertown has presented the Mercy Hospital of that city with modern equipment greatly needed by the hospital for the treatment of certain types of heart trouble and many times employed in the treatment of some respiratory diseases and of infantile paralysis.

The equipment selected included a new type of oxygen tent and control apparatus known as the senior oxygenaire controls, tank cart, and removable ice container. This equipment operates without an electric motor and the danger from electrical sparks are thus done away with. In connection with it is also a government-approved analyzer. An oxygen cylinder truck and a carrier truck for the safe and silent transport of cylinder tanks to any part of the hospital were also purchased.

Sister Mary John, the superintendent of the hospital, acknowledged the gift with a letter of appre-

ciation and thanks.\*

A contract to purchase the former Tietz Music Store property has been negotiated by Memorial Hospital in Albany.

The hospital owns properties on either side of this property, which are used for nurses' quarters.

It is likely the third building will be put to the same use.\*

It was recently announced that St. Jerome Hospital in Batavia will engage in a building program costing \$500,000 instead of the \$250,000 project promised in the current building fund campaign, the project to await the availability of materials.\*

#### At the Helm

Dr. Nathan Ginsberg, of Long Beach, has been appointed to the clinical staff of Mount Sinai Hospital in New York City. His appointment is in the heart department. The doctor has practiced in Long Beach for the past eighteen years and is on the staff of the Long Beach Hospital as an associate physician.

Miss Dorothy V. Elliott, R.N., M.S., is the new directress of nurses at the North Country Community Hospital in Glen Cove. She received her Bache-

Asterisk indicates that item is from local newspaper.

lor of Science degree at Ohio State University, Columbus, Ohio, in 1937; she is a graduate of the Grace Hospital, Detroit, Michigan, and did postgraduate work at the Woman's Hospital, New York City

Before going to Glen Cove, Miss Elliott was science instructor at Glenville Hospital, Cleveland, Ohio, and later directress of nurses at the same hospital. For the past several years she has been educational director at the Grace Hospital, Detroit, Michigan. She received her Master's degree at Ohio State University in September of this year.

Miss Elliott is a member of the American Nurses'

Association, National League of Nursing Education, and the American Red Cross Nursing Service.\*

Louis H. Putnam, well-known hospital executive, has been appointed general manager of the House of St. Giles the Cripple in Brooklyn. In this capacity, he will be in direct charge of St. Giles' Hospital at 1346 President Street and the Convalescent Home in Garden City, Long Island.

For almost forty years, Mr. Putnam has been engaged in hospital management and social and child welfare activities. He is best known to residents of metropolitan New York for his work as superintendent of the Staten Island Hospital from 1929 to

1941.

Before coming to Staten Island, he had organized the West Virginia Society for Care, Cure, and Training of Crippled Children, and served as superintendent of the North Carolina Children's Board, the Florida State Industrial School, and the Mo-

while Country (Alabama) Juvenile Court System.

While in West Virginia, Mr. Putnam also was director of the State Board of Children's Guardians, vice-chairman of the West Virginia Liberty Loan Committee, and confidential agent under Governor

John J. Cornwell during World War I.

He is a member of the American Hospital Association and a former member of the Brooklyn Hospital Council.\*

Dr. Leverett D. Bristol, New York, health director of the American Telephone and Telegraph Company since 1929, has been appointed executive director of the Hospital Council of Greater New York, as of December 1. The council is a community planning agency to coordinate and improve the hospital and health services of New York City and to plan the economic development of these services in relation to community needs. It is made up of about twenty leading voluntary and government health, hospital, medical, welfare, and business organizations of the state and city and its work is carried on through a planning committee made up of representatives of member agencies. The council has a close working relationship with the United Hospital Fund of New York City. One of its immediate mediate projects will be to develop and plan for the present and postwar periods for the organized care of the sick in greater New York. Dr. Bristol's offices will be at 370 Lexington Avenue, New York 17.

Ralph E. Jones was re-elected president of the Board of Directors of Highland Hospital in Beacon at the annual meeting held on December 4. All

officers were renamed.

Herbert F. Haley was re-elected vice-president, Mrs. Simon Cahn, corresponding secretary, Mrs. Leonard J. Supple, recording secretary, Frederick W. Heaney, treasurer, and Hazel M. Crum, assistant treasurer.

This will be the third year Mr. Jones has served as president and Mr. Haley as vice-president.\*

Announcement of the appointment of Dr. Edward A. Klauber, of Stapleton, as attending physician, Dr. E. F. Fieramosca, of West Brighton, as adjunct attending physician, and Dr. E. Morris Gould, of Manhattan, as neuropsychiatric consul tant on the medical staff of Staten Island Hospital, has been made by William E. P. Collins, hospital superintendent.

Dr. Klauber is a general practitioner. He was graduated from Long Island College in 1924 and is

experienced in traumatic surgery.

Formerly clinical assistant, Dr. Fieramosca is an alumnus of Curtis High School, St. John's University, and Loyola University Medical School. He served his internship at St. James Hospital in Newark, New Jersey, and is a member of the Richmond County Medical Society and the American Medical Association.

Dr. Gould replaces Dr. Samuel Reback, neuropsychiatrist on the consultant and outpatient department staffs. The latter has been given a leave of absence for the duration to enter the U.S. Army

Dr. Gould is a Yale graduate and is a member of the American Board of Psychiatry and Neurology a director of neurology at Queens General Hospital on Long Island; consultant neurologist at Rock-away Beach (L.I.) Hospital, and St. John's Long Island College Hospital's department of neurology.

Mrs. Edna J. Griffin, a native of Nova Scotia and a graduate of Montreal General Hospital School of Nursing, has been engaged as superintendent of Goshen Hospital.

Mrs. Griffin was assistant director of nurses in Wyckoff Heights Hospital, Brooklyn, during 1922 and 1928, and superintendent of Hays Sanitarium and Park West Hospital, New York, from 1923 to 1927. From 1928 to 1936 she served as superintendent in Prospect Heights Hospital, Brooklyn, and from 1937 to 1940 she was in charge of nurses in Women's Homeopathic Hospital, Philadelphia, from which she came to Goshen.

Dr. Francisco Diaz-Valdes of Havana, Cuba, has taken over the post of intern at General Hospital in Utica.

Dr. Valdes received his degree in medicine from the University of Havana early in 1943 and since then was an intern in a Havana hospital.\*

Terminating thirty-six years' service as a member of the Board of Managers of the Mount Vernon Hospital, Richard M. Winfield has resigned as a board member and as vice procedure of the Associaboard member and as vice-president of the Association.

The board accepted the resignation "with regret" and unanimously elected Mr. Winfield an honorary member. The only other living honorary member of the board is Mrs. William H. Martens of

Bronxville.

Dr. Mark J. Schoenberg has been appointed consulting ophthalmologist at the Manhattan Eye, Ear and Throat Hospital.

Dr. Louis Lahn has been appointed Adjunct Proessor of Gynecology and Obstetrics and Assistant Attending Gynecologist at the New York Polyclinic Medical School and Hospital.

. Dr. M. F. Donnelly has been chosen as chiefof-staff at Nathan Littauer Hospital in Gloversville. Dr. Donnelly succeeds Dr. H. H. Oaksford, who has served in this capacity for the past three

Dr. Donnelly has been connected with the hospital staff for more than ten years, and has served as at-

tending surgeon.\*

The Lewis County board of supervisors has reappointed Frank Bowman, of Lowville, a member of the board of directors of the Lewis County General Hospital and Mrs. John F. Woolschlager, of Castorland, a member of the county laboratory board.\*

#### LY NOISE ABATEMENT PROGRAM SHOULD BE PART OF WAR EFFORT

Pointing out that "injury, measurable and uneasurable, from noise such as now widely attends man life is real and not a matter for speculation, irey P. McCord, M.D., and John D. Goodell, etroit, declare in the Journal of the American edical Association for October 23 that relief from ise is procurable and that effort against noise is a idely neglected but legitimate portion of over-all arfare.

Their article is a report of the Association's

ommittee to Study Air Conditioning.

In their introduction the two men say that "It a commonplace fact that the nation's present reumstances of living and working have greatly ultiplied both the quantity and the continuity I noise. At the same time justification for noise ems better established so that indignation, howver warranted, meets some disfavor. If the period f national stress may so accentuate the ill effects f noise that a disturbed people will demand and ecure relief both for the duration of the conflict nd thereafter, at least one constructive end will rave been attained...

"The acceptance of noise as an inescapable ecessity possibly reflects unintelligent complaency. A proper understanding of the established Il effects of noise and the practicability of noise ontrol would appear to warrant sponsorship of ioise abatement as a fecund war measure. surpose of this report is to assert that much current ioise is needless; that effort against noise is a videly neglected but legitimate portion of over-all variare; that methods of noise control are practial and no longer technically mysterious; and behind ome of the more publicized evils of the day, such is wilful absenteeism, may be found the insidious disturbances from noise."

The authors point out that although not all industries may be disturbingly noisy, a recent prewar publication listed 467 occupational pursuits out of 7,000 as ones clearly contributing undesirable noise output. They say that this figure fails to indicate the total probable exposure since many noise-free operations are customarily carried out in proximity to noisy ones. "As a rule," they say, "the architecture of manufacturing plants is such

as to accentuate reverberation.
"Chiefly from industrial experience, it is now accepted as established that noise produces significant deafness both on a functional and on an organic basis, that noise causes or contributes to pathologic fatigue and under some circumstances lowers the work output, Less certainly established, but probable, are the indications that noise unduly contributes to absenteeism, increases work spoilage and generally hampers the worker, and especially the new worker in job adjustment....

"It is fallacious to claim that workers become inured to noise. They may become inured on the basis of deafness, but any psychologic adjustment that may appear to take place must be reacquired on a day-to-day basis."

They say that many noisy operations in an industry may be made quiet ones with relatively little difficulty. As for noise abatement through architectural features, the two men say that "present and prospective needs inescapably require a wider application of architectural noise prevention....
"To accomplish noise privacy it becomes neces-

sary to provide two structural features: (1) a design of wall structure so as to prevent the transmission of sound from exteriors and between rooms; (2) sufficient absorption within rooms that the reverberation time will not be excessive. Contrary to some popular and pseudo architectural concepts, these are two distinct matters requiring individual

As a whole, although high-frequency sounds produce greater acoustic injury than those of low frequency, in the long run low-frequency sounds may offer greater problems because they are less

easily abated.

Dr. McCord and Mr. Goodell say that the control of noise by municipal or higher authority never has been wholly effective and never will be until the time is reached when both the public and responsible officials have acquired better concepts of the significance of noise and the measures through which noise may be eliminated or reduced to inoffensive

"Education of the public as a whole and in special groups along the necessary legislation," they say,

appears to be the key to noise amelioration."

They say that it also seems necessary to carry out educative programs for the makers or surveyors of noisy devices, and particularly for architects and builders of various structures such as homes, hotels, office buildings, and streetways. They cite as an example the need for improvement in the sound aspects of many automobile horns and other warning devices, and point to the fact that the mellow horn now used on diesel locomotives has been found to have many advantages over the shrill steam whistle.

"The continued use of noisy streetcars lends affront no longer to be tolerated as a necessary evil, except under the immediate conditions imposed by

war," the two men declare.

#### Health News

#### Industrial Health Meeting Follows Medical Education Congress

"The sixth Annual Congress on Industrial Health (sponsored by the Council on Industrial Health of the American Medical Association) will take place on February 15 and 16, 1944, at the Palmer House in Chicago," the Journal of the Association announces in its December 25 issue. "Those who expect to attend are urged to make travel and hotel reservations at their earliest convenience. These sessions follow directly after those of the Annual Congress on Medical Education and Licensure. The deans of medical schools and others interested in medical education may find it possible to attend the sessions on industrial health; a special effort will be made to induce them to do so. Official representatives of medical societies and allied organizations can attend both congresses this year without extra travel.

"One of the great obstacles to the growth of industrial medical service has been the slow development of public interest in the health and economic benefits which the physician can bring to the industrial organization. The Congress on Industrial Health, therefore, will attempt to attract greater interest from management and labor. Prominent representatives of these groups will be asked to

participate.

"Interest in the physical welfare of the working population must be maintained even after the stimulus of wartime production is over. element in postwar planning must be encouraged. The sessions of the sixth Annual Congress on Industrial Health will attempt to bring this relationship into proper focus. The congress will also emphasize the importance of physical restoration, retraining, and reemployment of the disabled, an issue which is certain to be a source of medical preoccupation for some years to come.

"Industrial health is gradually assuming greater and greater importance as an avenue for the distribution of medical service. Every physician and medical organization should recognize the trend so that the movement may be guided along dependable

scientific and educational lines."

#### Units of Civilian Physicians Commissioned by Public Health Service

THE U.S. Office of Civilian Defense announced on December 8 that 93 hospitals and medical schools scattered throughout the country have completed formation of "affiliated units" of civilian physicians which will be available to either the OCD or the Army in the event of need for setting up emergency hospital facilities in their respective areas.

Each unit is composed of 15 physicians, surgeons, and other specialists, and forms a balanced professional staff. OCD will use the units to supplement sional staff. OCD will use the units to supplement the staffs of "emergency base hospitals" located in relatively safe zones on the fringes of critical areas in case it is necessary to transfer civilian patients to these hospitals because of emergency in such areas.

The units will be called upon by the War Department to staff extemporized hospitals should there be a sudden influx of battle-front casualties, or some other extraordinary military necessity, requiring hospitals and physicians beyond the immediate capacity of the Army in any particular locality.

The OCD-affiliated units will be used for military emergency purposes only in or near the communities in which the staff resides. Their duty will be temporary and they will be replaced by Army doctors as quickly as the Surgeon General of the Army can make the necessary assignments.

Normally, all the 15 doctors of a unit are assorated with a single hospital. Each unit includes: 1 chief and assistant chief of medical services, (470 general internists, a chief and assistant chief of surp cal services, four general surgeons, two orthopsedic surgeons, one dental surgeon, one pathologist, and

one radiologist.

Physicians accepted for service in the units receive inactive reserve commissions in the U.S. Public Health Service, but will be called to active duty by the Surgeon General (USPHS) only at the request of OCD. When a unit is needed, either to staff an emergency base hospital or to assist the Army temporarily in a military emergency, the physicians of the unit will be placed on active duty for the duration of that particular emergency.

Organization of these units in selected communities will give both OCD and the Army organ ized emergency hospital staffs which can be called

upon in time of need.

Following is a list of units completed and commissioned by the Public Health Service up to October 30, 1943, arranged according to Civilian Delense Regions:

Region I

Boston University School of Medicine, Boston,

Cambridge Hospital, Cambridge, Mass. Goddard Hospital, Brockton, Mass. Harvard Medical School (A), Boston, Mass. St. Luke's Hospital, Pittsfield, Mass. Springfield Hospital, Springfield, Mass. Central Maine General Hospital, Lewiston, Maine Eastern Maine General Hospital, Bangor, Maine Maine General Hospital, Portland, Maine Lawrence and Memorial Associated Hospitals, New

London, Conn. Meriden Hospital, Meriden, Conn. Stamford Hospital, Stamford, Conn. Waterbury Hospital, Waterbury, Conn. Yale University School of Medicine, New Haven,

Rhode Island Hospital, Providence, Rhode Island Elliot Hospital, Manchester, New Hampshire St. Joseph's Hospital, Providence, Rhode Island

Region II

Brooklyn Hospital, Brooklyn, N.Y. Fordham Hospital, New York, N.Y.

Goldwater Memorial Hospital (New York City Hospital), New York, N. Y. Grasslands Hospital, Valhalla, N.Y. Jewish Hospital of Brooklyn, New York Mary Immaculate Hospital, Jamaica, Long Island, N.Y.

[Continued on page 318]

# WHERE THE APPETITE NEEDS TEMPTING...

The patient whose capacity for exercise is limited, frequently presents a peculiar nutritional problem. Appetite wanes, digestion falters and a vicious circle thereby develops.



Horlick's helps solve this problem with little, if any, tax on the digestion. This delicious food-drink offers a pleasant means of pushing sound basic nutrition and insuring the intake of "effective" food elements.

In many conditions of infection—e.g., influenza and its aftermath—where it is necessary to "push" liquids while administering full nutrition with good vitamin intake, Horlick's can be most helpful.

Horlick's is delicious whether prepared with milk or with water. The Tablets are also useful and convenient to eat at intervals during the day.

Recommend
HORLICK'S

The Complete Malted Milk-Not Just a Malt Flavoring for Milk

# HORLICK'S

#### [Continued from page 316]

Methodist Hospital, Brooklyn, N. Y. Millard Fillmore Hospital, Buffalo, N.Y. Mount Sinai Hospital, New York, N.Y. New York Polyclinic Medical School and Hospital, New York, N.Y. Queens General Hospital, Jamaica, L.I., N.Y.

Syracuse University College of Medicine, Syracuse, Albany Hospital, Albany, N.Y.

Delaware Hospital, Wilmington, Del. Atlantic City Hospital, Atlantic City, N.J. Elizabeth General Hospital, Elizabeth, N.J. Newark Beth Israel Hospital, Newark, N.J. Newark City Hospital, Newark, N.J.

#### Region III

Allentown Hospital, Allentown, Pa.
Harrisburg Hospital, Harrisburg, Pa.
Lynchburg General Hospital, Lynchburg, Va.
Jefferson Hospital, Roanoke, Va.
Medical College of Virginia, Richmond, Va.
Wilkes-Barre General Hospital, Wilkes-Barre, Pa.

#### Region IV

Hillman Hospital, Birmingham, Ala. Norwood Hospital, Birmingham, Ala. St. Margaret's Hospital, Montgomery, Ala. Charlotte Memorial Hospital, Charlotte, N.C. Duke University School of Medicine, Durham, N.C. Rex Hospital, Raleigh, N.C. Columbia Hospital, Columbia, S.C. Greenville General Hospital, Greenville, S.C. James M. Jackson Memorial Hospital, Miami, Fla. Macon Hospital, Macon, Ga. Mississippi Baptist Hospital, Jackson, Miss.

#### Region V

Christ Hospital, Cincinnati, Ohio St. Vincent's Hospital, Toledo, Ohio St. Luke's Hospital, Cleveland, Ohio

Region VI (None)

Region VII

St. Luke's Hospital, Denver, Colo.

#### Region VIII

Baylor Hospital, Dallas, Texas City-County Hospital, El Paso, Texas Charity Hospital, New Orleans, La. Methodist Hospital, Dallas, Texas Robert B. Green Memorial Hospital, San Antonio,

Texas

St. Paul's Hospital, Dallas, Texas Shreveport Charity Hospital, Shreveport, La. Southern Baptist Hospital, New Orleans, La. University of Texas Medical Branch, Galveston, Texas

#### Region IX

Cedars of Lebanon Hospital, Los Angeles, Cal. College of Medical Evangelists, Loma Linda, Los Angeles, Cal.

General Hospital of Fresno County, Fresno, Cal. Hospital of the Good Samaritan, Los Angeles, Cal. Huntington Memorial Hospital, Pasadena, Cal. Monterey County Hospital, Salinas, Cal. Mount Zion Hospital, San Francisco, Cal. Presbyterian Hospital-Olmstead Memorial, Los

Angeles, Cal. Queen of Angels Hospital, Los Angeles, Cal. San Joaquin County General Hospital, French Camp, San Joaquin County, Cal. Santa Clara County Hospital, San Jose, Cal.

Sonoma County Hospital, Santa Rosa, Cal University of California Medical School, San Fran cisco, Cal.

Stanford University Medical School, San Francisco,

Deaconess Hospital, Spokane, Wash. King County Hospital, Seattle, Wash. Providence Hospital, Everett, Wash. Providence Hospital, Scattle, Wash. St. Joseph's Hospital, Tacoma, Wash. St. Luke's Hospital, Spokane, Wash Tacoma General Hospital, Tacoma, Wash. Emanuel Hospital, Portland, Ore.

Good Samaritan Hospital, Portland, Ore. Sacred Heart General Hospital, Eugene, Ore. Columbus Hospital and Montana Deaconess Hospi

tal, Great Falls, Mont. Thomas D. Dee Memorial Hospital, Ogden, Utah Washoe County General Hospital, Reno, Nev.

Washington Region

Howard University College of Medicine, Washington, D.C.

The Regions are made up of states as follows region I—Massachusetts, Maine, Connecticul, Rhode Island, New Hampshire, Vermont; Region II—New York, New Jersey, Delaware; Region III—Pennsylvania, Maryland, Virginia, Region IV—Alabama, North Carolina, South Carolin Georgia, Florida, Mississippi, Tennessee; Regon V—Ohio, Indiana, Kentucky, West Virginia; Regon v—Omo, indiana, Rentucky, West Virginia, Ingian VI—Illinois, Michigan, Wisconsin, Region VII—Colorado, Iowa, Kansas Minnesota, Missoun Nebraska, North Dakota, South Dakota, Wyoming Region VIII—Texas, Louisiana, Arkansas, Nemerico, Oklahoma; Region IX—Cahfornia Oregon Washington, Nevada, Arizona, Idaho, Montana Utah

#### Clark to Head Physical Rehabilitation Section

Federal Security Administrator Paul V. McNut has announced the assignment of Dr. Dean A. Clark surgeon, U.S. Public Health Service, as chief medi cal officer of the Office of Vocational Rehabilitation to take charge of the newly established Physics Rehabilitation Section. The arrangement between these two branches of the Federal Security Agency was made by Surgeon General Thomas Parran a the request of Michael J. Shortley, director of vocational rababilitation tional rehabilitation.

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Barden-LaFollette Act of July 6, 1943.
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[Continued on page 320]

## After You, Doctor, in the Care of Flat-Feet

When there is evidence in a customer that flat-feet are developing, we do not pretend that our knowledge is sufficient to correct or arrest such a condition. We know our part can be helpful, but prefer to have a physician or surgeon say so.

We do not believe that a mere print of the feet—the usual examination of shoe stores promoting "health" shoes is sufficient to indicate the real nature of flat-feet. We prefer to have our customers see their doctor first and then come to us when he recommends the type of shoe he wants the patient to use.

When this is done, Pediforme Footwear will do the job for which prescribed and scientifically constructed for. You may be confident of that.





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EAST ORANGE, 29 Washington Pl.
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HEMPSTEAD, L. L., 241 Fulton Ave. HACKENSACK, 299 Main St.

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#### [Continued from page 316]

Methodist Hospital, Brooklyn, N. Y. Millard Fillmore Hospital, Buffalo, N.Y. Mount Sinai Hospital, New York, N.Y.

New York Polyclinic Medical School and Hospital, New York, N.Y.

Queens General Hospital, Jamaica, L.I., N.Y. Syracuse University College of Medicine, Syracuse,

N.Y. Albany Hospital, Albany, N.Y. Delaware Hospital, Wilmington, Del. Atlantic City Hospital, Atlantic City, N.J. Elizabeth General Hospital, Elizabeth, N.J. Newark Beth Israel Hospital, Newark, N.J. Newark City Hospital, Newark, N.J.

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Barden-LaFollette Act of July 6, 1943.
"Until the expansion of the Vocational Rehabilitation Program under this new law," he said, "there was no Federal program for this purpose, "there was no Federal program for this purpose, and the Part of Company the laws aided although the Federal Government has long aided the States in providing vocational guidance and training for the handicapped. The addition of physical rehabilitation greatly strengthens the program, because relatively simple surgery often can materially decrease a physical handicap or even remove or fully compensate for it."

He explained that the new vocational rehabilitation program will make an important contribution to the war effort by facilitating the employment of the physically handicapped and thus promoting effective use of manpower for war work.

[Continued on page 320]



HIS war-winter brings its devastating blitz of respiratory ailments and arthritic flare-ups which must be treated promptly, efficiently. Two effervescent products stand out as effective agents for bringing symptomatic relief—

# Acetyl-Vess (Buffered Salt of Aspirin)

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These potent analgesic, antipyretic formulae are enhanced by the presence of alkali buffers which assure maximum tolerance and essential fluid intake. Buffer-alkali mechanism in combination with the effervescent (CO<sub>2</sub>) factor hasten absorption by decreasing emptying time of the stomach.

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I I	Gentlemen Send me a professional trial package of—Acetyl-Vess [	Salici-Vess [] reference)
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į	Address State	

[Continued from page 318]

Mr. Shortley called attention to the fact that the rehabilitation program is designed to assist all physically handicapped individuals to obtain remunerative employment, except veterans with service-connected disabilities, who come under the program directed by the Veterans Administration. The program is operated by the States through their Boards of Vocational Education and their official agencies for the blind.

As a war measure, the Federal Government pays the full cost of rehabilitating war-disabled civilians. These include officers and crew members incapacitated while on war duty in the merchant marine, and members of the Aircraft Warning Service, Civil Air Patrol, and U.S. Citizens Defense Corps. For other individuals, the Federal Government pays half the cost of rehabilitation. All administrative expenses of the States in conducting approved rehabilitation programs are also met with Federal funds. Under the new statute, Federal aid may be utilized to provide all types of medical and surgical services necessary to modify a physical condition which is static and which constitutes a substantial handicap to employment. Conditions for which medical services are undertaken must, however, be of such a nature that treatment may be expected to eliminate or substantially reduce them within a reasonable length of time. Hospitalization not to exceed ninety days may also be furnished as well as prosthetic appliances essen-

tial for obtaining or retaining employment.
With Dr. Clark as chief medical officer, Mr.
Shortley said, the Physical Rehabilitation Program will be directed by a physician with both a broad training in several fields of medicine closely associated with rehabilitation work and also experience in public administration. Since 1938, Dr. Clark has been engaged in work connected with the organization and distribution of medical care. On the staff of the U.S. Public Health Service since 1939, he was assigned to the Division of Public Health Methods, National Institute of Health, until 1942; for the last year and a half he has served as chief of the Emergency Medical Section of the Public Health Service and as chief of the Hospital Section, Medical Division, Office of Civilian Defense.

A native of Minnesota and a graduate of Princeton University, Dr. Clark's background includes three years as a Rhodes Scholar at Oxford University, England, where he received the degrees of Bachelor of Arts and Bachelor of Science in physiology. In 1932, he took his medical degree at the Johns Hopkins Medical School, Baltimore. He served an internship in medicine at the Johns Hopkins Hospital; later he was assistant resident nopkins nospital; later ne was assistant resident in medicine and neurology at the New York Hospital, New York City; National Research Council fellow in neurophysiology at the Cornell University Medical College, New York City; assistant resident at the Henry Phipps Psychiatric Clinic, Johns Hopkins, and intern at Trudeau Sanatorium, Trudeau, New York.

#### Award of the Sedgwick Memorial Medal

At the Seventy-second Annual Meeting of the American Public Health Association held recently in New York City, Brigadier General James Stevens Simmons, director, Preventive Medicine Division, Office of the Surgeon General, United States Army, was awarded the Sedgwick Memorial Medal for 1943 "for distinguished service in public health."

#### Health Units for the West Indies

A large-scale demonstration of the health unit system—by which it is hoped to improve the standard of health throughout the West Indies-is being staged in Jamaica to serve as a model and training ground for twelve other schemes in Jamaica, and many more throughout the islands. The health unit, a new idea for the Colonies, is an organization which provides a small community with the means to prevent and cure disease. Its main functions are seven: health education, antenatal and maternal care, child welfare, school medical work, prevention of endemic diseases, control of endemic diseases, and sanitation. The work of the unit is carried on from a center, where a medical officer of health has his office. Clinics are held for treatment, and an important feature is a meeting-room for talks, lectures, and demonstrations. Away from the center will be branches, staffed by nurses and midwives, who will also visit the people's homes.

Village health leagues will be formed, and the center will put out health propaganda. The Jamaica Center is to have a model venereal disease clinic, and start an intensified campaign against yaws. The underlying assumption is that with good teamwork the health unit system can accomplish far more than a much larger number of doctors working independently could do; it can get into close touch with the people and can be linked with social welfare, agriculture, education, and other efforts to raise the standards of rural life in the

West Indies.—Brit. M. J.

## New Advisory Committee on Health Edu-

An Advisory Committee on Health Education has been appointed by the President of the New York Tuberculosis and Health Association in accordance with the recommendation of the Executive Committee. The appointment of the new committee brings into one advisory group Board members and other leaders in this field who already are acquainted with special aspects of the Association's health education work. It will give to the Association and to the Health Education Secretary, Mrs. K. Z. W. Whipple, the advantage of its joint counsel on the broad health education program.

Dr. Donald B. Armstrong, who for a number of years has been board adviser on health education, is chairman of the new committee. It includes also among the members, chairmen of subcommittees on health education of the several divisions of the Association who have been giving advice regarding

health education work in their respective fields.

Board members appointed to the committee are: Board members appointed to the committee are: Dr. Donald B. Armstrong, Chairman; Dr. Leverett D. Bristol, Dr. Kendall Emerson, Mrs. Walter A. Hirsch, the Very Rev. Msgr. William R. Kelly, Mrs. Ruth Logan Roberts, and Dr. Ernest L. Stebbins. The other leaders in the field who have accepted membership are: Dr. Frank J. O'Brien, associate superintendent of schools; Dr. Harry Ungerleider, chairman, Health Education Committee, Heart Division; Dr. John Oppie McCall, chairman, Health Education Committee, Dental Division; Dr. C. C. Pierce, chairman, Social Hygiene Committee, and Dr. Charles E. Lyght, director, Health Education, National Tuberculosis Association. Association.

[Continued on page 322]

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[Continued from page 320]

#### Public Health Service Reorganized

Dr. Thomas Parran, Surgeon General of the U.S. Public Health Service, has announced the names of five persons to head the new bureaus and divisions set up through the reorganization of the U.S. Public Health Service by Congress on November 11. The reorganization was authorized in the enactment of a bill (S. 400)

Dr. Lewis R. Thompson, medical director serving in the surgeon general's office, has been named assistant surgeon general in charge of the new Bureau of States Services. Dr. Ralph C. Williams, formerly district director, with headquarters in New York, has been named assistant surgeon general in charge of the new Bureau of Medical Services. Dr. Rolla E. Dyer, director of the National Institute of Health, Bethesda, Md., will in addition serve as assistant surgeon general in charge of the new Bureau of Scientific Research. John K. Hoskins, senior sanitary engineer, under the new setup will become chief of the division of sanitary engineering, and William T. Wright, Jr., D.D.S., chief of dental work in the Marine Hospital Division of the Public Health Service, will become chief of the division of dentistry. All five will hold ranks comparable to an army brigadier general, it was approunced. They have been in a grade comannounced. They have been in a grade comparable to a full colonel in the Army. Mr. Hoskins is said to be the only nondoctor or -dentist to hold a rank in the Public Health Service comparable to that of brigadier general. S. 400 provides that the Surgeon General of the Public Health Service, under the supervision and direction of the Federal Security Administrator, is authorized and directed to assign to the Office of the Surgeon General, to the National Institute of Health, and to the Bureau of Medical Services and the Bureau of States Services the functions of the Public Health Service and to establish within the Office of the Surgeon General and the other groups named such divisions, sections, and other units as may be required to perform their functions.—J.A.M.A.

#### Dr. Godfrey Reappointed Health Commissioner

The gratifying news was announced December 23 of the reappointment by Governor Dewey of Dr. Edward S. Godfrey, Jr., as State Commissioner of Health, thus continuing the established custom in New York State of appointing to this highly responsible position a public health administrator

of established reputation.

This has been a tradition in the State since 1914, when Dr. Hermann M. Biggs, who had developed the New York City Health Department and had a national and international reputation in public health, was appointed State Health Commissioner, serving until his death in 1923. He was succeeded by his deputy, Dr. Matthias Nicoll, who served until 1930, when he accepted a position as Health Commissioner of Westchester County. Dr. Nicoli was succeeded by Dr. Thomas Parran, Jr., then in the U.S. Public Health Service, whose leave of absence to New York was authorized by President Hoover, and the Secretary and Under-Secretary of the Treasury Department, the late Mr. Andrew Mellon and the late Mr. Ogden Mills. Dr. Parran served until 1936, when he was appointed Surgeon General of the U.S. Public Health Service.

Thus, since January, 1914, there have been four

Health Commissioners of New York State who have served during fourteen gubernatorial terms. Two of them, Dr. Biggs and Dr. Godfrey, were continued in office by two Governors of a different party from the one who originally appointed them.

The health department of all divisions of Federal, State, and local government, has the greatest practical opportunity for promoting human well-being through the prevention of disease. If qualified and able men are to be attracted to a public health career, responsible positions in public health must be filled by career men and their tenure of office should be reasonably assured on the basis of demonstrated efficiency. The action of Governor Dewey in reappointing Dr. Godfrey as State Health Commissioner is heartening and encouraging confirmation of this fact.

Since 1908, Dr. Godfrey has held increasingly responsible public health positions, beginning with that of Superintendent of Public Health of the territory of Arizona. In 1917 he was appointed one of the District State Health Officers by Dr. Biggs. He became Director of the Department's Division of Communicable Diseases in 1920, and in 1934 was appointed Assistant Commissioner for Local Health Administration, serving until 1936, when he became Commissioner.—S.C.A.A. News

#### Gorham Is Appointed to Public Health Council

Governor Thomas E. Dewey has announced the reappointment of Dr. L. Whittington Gorham, of Albany, to the New York State Public Health Council. The term of office of council members is six

Dr. Gorham was also recently appointed a member of the Executive Committee of the State Committee on Tuberculosis and Public Health, State

Charities Aid Association.

#### Deborah Society Raises \$100,000 for Tuberculosis Fund

The Deborah Jewish Tuberculosis Society celebrated its twentieth anniversary on December 19 at the Waldorf-Astoria with a dinner in honor of its founder, Mrs. Dora Monness Shapiro. Israel Katz, president, announced that \$100,000 had been raised at the function for expansion of the society's facilities at Brown's Mills, N. J.

Messages of congratulation were received from Governor Dewey, Mayor La Guardia, Senator Robert F. Wagner, Mrs. Franklin D. Roosevelt, William Green, president of the American Federation of Labor, and Philip Murray, president of the Congress of Industrial Organizations. The society is supported by the cloak, suit, and dress industry

and by fraternal organizations.

#### War Work a Hazard to the Tuberculous

High wages paid to war workers are a lure which prompts many patients to leave tuberculosis hospitals before they have regained their health and acts as a deterrent to newly diagnosed cases accepting early treatment. As a result, the public health is jeopardized, according to Dr. Robert E. Plunkett, General Superintendent of Tuberculosis Hospitals of the State Department of Health.

Doctor Plunkett emphasized that many patients are endangering their lives and the lives of others by going into war plants, thereby exposing fellow workers and members of their families to the dis-

[Continued on page 324]



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#### [Continued from page 322]

ease. "These beds are empty in spite of the fact that during the first ten months of 1943 there were fifty more deaths and 252 more new cases reported than in the corresponding period of 1942," he said. He added that the Department is taking steps to bring these facts to the attention of physicians, public health workers, industrial leaders, and others in order that this serious situation may be corrected.

"One evidence of the decrease in the utilization of tuberculosis hospital facilities is that in the last few months there were about 750 vacancies for adults in all county, city, and state public tuberculosis hospitals in the upstate area. This represents 16 per cent of the total beds available for adults, whereas under normal circumstances, only from 5 to 10 per cent of such beds are unoccupied at any one time.

"Of even greater significance is the observation that fewer patients known to have infectious tuberculosis are currently isolated in hospitals than formerly. In 1941, an analysis of tuberculosis cases residing in the areas under the supervision of the district state health offices showed that of those patients known to have tubercle bacilli in their sputum, about 60 per cent were then receiving hospital care and treatment. A similar study in the summer of 1943 revealed that only 40 per cent of such patients were hospitalized.

"For these people with active tuberculosis even light work is very apt to be detrimental. The least possible effect of working is retardation of eventual recovery from the disease but, for the majority, this ill-timed return to work represents nothing short of gambling with death."

#### Plan to Furnish Sanitary Engineers

The State Department of Health today made public a plan evolved in an effort to meet a serious public health problem caused by a shortage of sanitary engineers in the Department due to demands for service in the armed forces. C. A. Holmquist, director of the Division of Sanitation of the Department, announced the plan, which calls for the intensive training of civil engineers while serving in the Department, and the appointment of the first six under the program.

At the outbreak of the war fourteen sanitary engineers in key positions with the Department who were reserve officers responded to calls to active duty. Their positions were filled by promoting junior engineers. Mr. Holmquist said that eight of the present district sanitary engineers of the Department are under 38 years of age and are now being processed for commissions in the Army and probably will be called for military duty early in 1944.

"The system of training in the department for public health engineering," Mr. Holmquist said, is definitely a wartime measure, made necessary by the shortage of sanitary engineers in the country to fill the appeared and are in the country.

to fill the expected vacancies.

"The graduate engineers so far appointed will be trained in the field to fill the vacancies and to handle the public health engineering work in the districts to which they have been assigned. They will be under the supervision of sanitary engineers in adjacent districts. It was if the content of the co

districts to which they have been assigned. They will be under the supervision of sanitary engineers in adjacent districts. It was difficult to find men to fill these jobs and we canvassed practically the entire country. However, we were fortunate enough to find the eight men neeeded to carry on the work."

The men have been assigned to district offices as follows: Ringhamon.

The men have been assigned to district offices as follows: Binghamton, J. H. Bolton, of Watkins; Amsterdam, C. R. DeGraff, of Amsterdam; Poughkeepsie, J. C. Milluish, of New York City; Middletown, H. H. Boeckman, of New York City; Oneonta, H. Stemmann, of New York City; and Batavia, Burton X. Lentz, of Watsontown, Pennsylvania. Vacancies still exist in the Kingston and Gouverneur offices, but it is expected that they will be filled within a few days.

# Psychiatrist of British Army Praises U.S. Mental Tests

BRIG. J. R. Rees, chief of the neuropsychiatric service of the British Army, recently told of the technic of American doctors enabling the return to active duty of 60 per cent of a group of soldiers who in the last war would have been known as "shell-shock" cases. The American system, he said, was "far ahead of anything we have in England." Brigadier Rees further states that England has looked to the United States as "the home of progress in psychiatry." He said that America had done "magnificent work" in the last war in psychologic testing of prospective soldiers and that not only England but Germany also has borrowed largely from American procedure.—J.A.M.A.

#### History of Medicine

The Session on the History of Medicine of the Medical Society of the State of New York holds annual meetings along with the regular sections of the Society. It has had two very successful meetings, and is preparing for a third in 1944. So far, the policy of the Session has been to confine the subject of the papers presented to material related to the history of medicine in New York State. In this way, a valuable compilation of data related to New York State medicine will be gradually accumulated.

Anyone having material suitable for presentation before this session will kindly communicate with the Chairman, Edward F. Hartung, M.D., at 580 Park Avenue, New York 21, New York.

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#### **BOOKS**

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn 16, N. Y.: Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

#### RECEIVED

Experimental Surgery. A Laboratory Guide for Undergraduate Students. By J. M. McCaughan, M.D. Quarto of 80 pages, illustrated. St. Louis, C. V. Mosby Co., 1943. Paper, \$2.00.

Human Gastric Function. An Experimental Study of a Man and His Stomach. By Stewart Wolf, M.D., Capt., (MC), AUS, and Harold G. Wolff, M.D. Octavo of 195 pages, illustrated. New York, Oxford University Press, 1943. Cloth, \$4.75.

Behind the Universe. A Doctor's Religion. By Louis Berman, M.D. Octavo of 303 pages. New York, Harper & Brothers, 1943. Cloth, \$2.75.

White Blood Cell Differential Tables. By Theodore R. Waugh, M.D. Duodecimo of 126 pages, illustrated. New York, Appleton-Century Co., 1943. Cloth, \$1.60.

Burma Surgeon. By Gordon S. Seagrave, Lt. Col., (MC), AUS. Octavo of 295 pages, illustrated. W. W. Norton & Co., 1943. Cloth, \$3.00.

Proctology. By Sylvan D. Manheim, M.D. Octavo of 137 pages. New York, Oxford University Press, 1943. Cloth, \$2.00.

Pathological Histology. By Robertson F. Ogilvie, M.D. Second edition. Octavo of 411 pages, illustrated with 235 photomicrographs in color. Baltimore, Williams and Wilkins Co., 1943. Cloth, \$9.00.

The Foot. By Norman C. Lake, M.D., M.S. Third edition. Octavo of 432 pages, illustrated. Baltimore, Williams and Wilkins Co., 1943. Cloth, \$5.00.

Psychological Medicine. A Short Introduction to Psychiatry. With an appendix, Wartime Psychiatry. By Desmond Curran, M.D., and Eric Guttmann, M.D. Octavo of 188 pages, illustrated. Baltimore, Williams and Wilkins Co., 1943. Cloth, \$3.50.

Elements of Medical Mycology. By Jacob Hyams Swartz, M.D. Octavo of 179 pages, illustrated. New York, Grune & Stratton, 1943. Cloth, \$4.50.

The Mechanics of Obstetrics. By Norris W. Vaux, M.D., and Mario A. Castallo, M.D. Octavo of 217 pages, illustrated. Philadelphia, F. A. Davis Co., 1943. Cloth, \$4.00.

Symptoms and Signs in Clinical Medicine. An Introduction to Medical Diagnosis. By E. Noble Chamberlain, M.D. Third edition. Octavo of 456 pages, illustrated. Baltimore, Williams and Wilkins Co., 1943. Cloth, \$8.00.

The Dysenteric Disorders. The Diagnosis and Treatment of Dysentery, Sprue, Colitis and Other Diarrheas in General Practice. By Sir Philip Manson—Bahr, M.D. Second edition. With an appendix by W. John Muggleton. Octavo of 629 pages, illustrated, including 9 color plates. Baltimore, Williams and Wilkins Co., 1943. Cloth, S10.

Surgical Errors and Safeguards. By Max Thorek, M.D., LL.D. Fourth edition, revised. Quarto of 1,085 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1943. Cloth, \$15.

The Medical Clinics of North America. Philadelphia Number. November, 1943. Index 1941-1943. Octavo. Philadelphia, W. B. Saunders Co., 1943. Published bimonthly (six numbers a year). Cloth, \$16 net; paper, \$12 net.

Peripheral Vascular Diseases. (Angiology). By Saul S. Samuels, M.D. Octavo of 84 pages. New York, Oxford University Press, 1943. Cloth, \$2.00.

#### REVIEWED

History of Surgery. By Richard A. Leonardo, M.D. Octavo of 504 pages, illustrated. New York, Froben Press, 1943. Cloth, \$7.50.

This seems to be the first large-scale history of surgery by a medical man. It is our impression that The Story of Surgery (1939) was written by a layman (Harvey Graham). In any case Leonardo's book is more comprehensive than the latter or John S. Billings' work on the subject (1895).

An especially useful feature is the seven chapters on recent surgery in England, Switzerland, Italy, France, Germany, Austria, and Hungary.

ARTHUR C. JACOBSON

Micrurgical and Germ-Free Techniques. Their Application to Experimental Biology and Medicine. A Symposium. Edited by James A. Reyniers. Octavo of 274 pages, illustrated. Springfield, Ill., Charles C Thomas, 1943. Cloth, \$5.00.

Micrurgy is a term introduced by Peterfi (1923) for work on a microscopic scale, such as micromanipulative technic under a microscope. This book is a symposium of papers by the editor and other well-known authorities in the fields of biology, botany, and medicine; in it are discussed briefly the

machines and technics for single-cell isolation of micro-organisms, as well as the propagation of higher forms of plant and animal life (invertebrate and vertebrate) in the germ-free state. There are also excellent chapters on the application of these methods to the study of the physical chemistry of protoplasm, the in-utero infection of embryos with viruses, and the prevention of air-borne infection in the human. No mention is made of the recent work with aerosols.

E. J. Tiffany

Biomicroscopy of the Eye. Volume 1. By M. L. Berliner, M.D. Quarto of 709 pages, illustrated, including 40 pages of color plates. New York, Paul B. Hoeber, Inc., 1943. Cloth, \$17.50.

This very satisfactory work on biomicroscopy of the human eyes is the first of its kind to appear in the United States. In spite of the difficulties with which the printer and publisher had to deal during this period of international war, the volume is a very fine example of the printer's art. The great number of colored illustrations are reproduced on a soft mat finish which, to the reviewer's mind, enhances their

[Continued on page 328]

FACTS DOCTORS SHOULD HAVE ON

# WINE DIET



Discussions of wine's historical uses . . . the caloric content of wine . . . its dextrose and levulose content . . . its vitamin and mineral constituents . . . the assimilability of the ferrous iron in wine . . . etc. . . form one of the chapters of The Therapeutic Uses of Wine (a Summary). This review in monograph form has been prepared by competent medical authorities. It should be of interest to specialists in many fields as well as to the general practitioner.

THE CONTENTS INCLUDE: Sections on the actions of wine on the gastro-intestinal system, the cardio-vascular system, the kidneys and urinary passages, the nervous system and the muscles, and the respiratory system. The uses of wine in diabetes mellitus, in acute infectious diseases and in treatment of the aged and the convalescent. The value of wine as a vehicle for medication. A section on the contraindications to the use of wine. An extensive bibliography for those who may wish to pursue the subject further.

This review results from a study supported by the Wine Advisory Board, an agricultural industry administrative agency established under the California Marketing Act, and has been sponsored by the Society of Medical Friends of Wine.

A copy of *The Therapeutic Uses* of *Wine* is available on request to any member of the medical profession. Write for it, to the Wine Advisory Board, 85 Second Street, San Francisco.



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#### [Continued from page 326]

usefulness. Although one does not gain the more natural appearance of highlights which is lent by the use of glossed paper, still the details are well brought out and the soft finish makes prolonged

study less fatiguing.

Dr. Berliner has arranged his material according to a comprehensive and lucid plan. He begins by discussing the various instruments and the theories of their construction and use. He then takes up in the classic order the various tissues of the eye and discusses their normal and pathologic appearances. His emphasis on the use of vital stains is worthy of special notice. Dr. Berliner's descriptions are clear and accurate. He has covered not only the commoner but also many of the more unusual conditions met with in clinical practice, and he has given due credit to those who have contributed to the subject.

Without a doubt, this volume and its companion, which is to follow, will become the standard textbooks for postgraduate work in this country. No ophthalmologist, be he novice or expert, can afford

to be without this fine contribution.

JOHN N. EVANS

Fingerprints, Palms and Soles. An Introduction to Dermatoglyphics. By Harold Cummins and Charles Midlo, M.D. Octavo of 309 pages, illustrated. Philadelphia, Blakiston Co., 1943. Cloth, \$4.00.

The authors, both professors of microscopic anatomy at Tulane University, Louisiana, have produced a classic on dermatoglyphics, a study of the patternings of epidermal ridges on fingers, palms, toes, and soles. The configurations are formed in the early fetus and they persist unchanged. Their variants exhibit differential trends among races, between the sexes, and among constitutional types. Some traits of the dermatoglyphics are heritable, hence are useful in recognizing types of twins and have promise of application in questioned paternity.

The book is immensely interesting to the biologist, geneticist, and dermatologist.

NATHAN THOMAS BEERS

An Introduction to Medical Mycology. By George M. Lewis, M.D., and Mary E. Hopper, M.S. Octavo of 342 pages, illustrated. Chicago, The Year Book Publishers, 1943. Cloth, \$6.50.

In the second edition of this book the authors have brought the bibliography up to date and have amplified many parts of the book with the very latest findings. The same clear and concise statement of facts has been continued. It is the most practical treatise in the English language on medical mycology. All the complicated nomenclature of this field has been simplified, so that it can be understood without difficulty.

It is a book that all dermatologists must have and one that many other physicians will want to bring their libraries up to the minute in mycology. J. C. Graham

Fractures and Dislocations for Practitioners. By Edwin O. Geckeler, M.D. Third edition. Octavo of 361 pages, illustrated. Baltimore, Williams & Wilkins Co., 1943. Cloth, \$4.50.

Although a small volume, this book covers the subject matter fully, emphasizing methods of treatment best applicable in the hands of the general practitioner or under conditions where modern equipment or adequate support is lacking. .

However, the author does not fail to mention and briefly analyze the most advanced ideas advo-

The descriptions necessarily must be brief, and therefore would prove insufficient for the use of the surgeons not fully trained in the treatment of these injuries.

The author's ideas as a whole are sound, and if carried out properly, should produce good results in

the treatment of such injuries.

NATHAN H. RACHLIN

Life is Too Short. An Autobiography. By C. Kay-Scott. Octavo of 348 pages. Philadelphia, J. B. Lippincott Co., 1943. Cloth, \$3.50.

This is the life story of a most extraordinary man, who began as a doctor of medicine, under his right name, Dr. Wellman, and achieved international fame as an African explorer and an expert in tropical medicine. Subsequently he assumed the name of C. Kay-Scott, lived for years in South America, explored the Amazon, was an unsuccessful farmer but a successful business executive, and gave up this phase of his protean career to go to France to study art, in which he was again to find acclaim and prominence. There is a delightful foreword by one of his sons, written in deep appreciation of the author's life and accomplishments. There is much philosophy in the book-not medical, but social, ethical, and cultural. This may make the reading not always the easiest, but the discussions are always sound and often profitable. When the book was written, the author was 72 years old and looking forward to his new adventure, which he feels certain will be "exciting". His life undoubtedly was-in many lands and in many languages and in a variety of marital environments.

JOSEPH RAPHAEL

Proceedings of the Rudolf Virchow Medical Society of the City of New York. Volume 1, 1942. Edited by the Publication Committee: Franz M. Groedel, M.D., and Bruno Kisch, M.D. Octavo of 72 pages. New York, Brooklyn Medical Press, Inc., 1943. Paper, \$1.00.

This little volume contains numerous useful contributions by a number of specialists. Doctor Mannheimer presents an interesting review of the achievements of Doctor Einhorn. There follow achievements of Doctor Einhorn. two helpful articles on the duodenal tube and the use of dyes in the diagnosis of gastric disorders. Achylia gastrica is covered in a very lengthy article by Kaufmann. Other papers on gastrointestinal disorders deal with pancreatic tumors and the salivary glands. Infectious diseases like scarlet fever and typhus are covered by several authors.

There are timely papers on phases of war medicine such as rheumatism, circulatory disturbances, trench nephritis, and neuropsychiatric findings in

combatants.

Lichtwitz has a thorough article on fatigue There are quite a few interesting case reports as well. Though one might not subscribe to all the views

expressed in this brochure, the papers are nevertheless interesting and worth reading. A. M. Babey

The Boy Sex Offender and His Later Career. By Lewis J. Doshay, M.D. Octavo of 206 pages, illustrated. New York, Grune & Stratton, 1943. Cloth,

This study is based on information obtained \$3.50.

[Continued on page 330]

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For twenty-five cents, you can now spend a good part of the weekend wading through "Murder at Sunrise" in red, "Murder at Noon" in green, or "Murder at Sunset" in blue. The colors, of course,

refer to the book covers.
Says a news writer, "The stack of 'Murder at 4. P.M. (gay orange) reaches halfway to the ceiling. It won't last, though. Over the weekend it will be sold to the last copy, and on Monday a towering heap of 'Murder at Breakfast' in chrome yellow will

have its place. "While publishers announce dozens of postponements of works of non-homicidal fiction, pleading the paper shortage, murder, it seems, is not rationed.
"It's the war,' explains the news vendor, 'People want something to rest them.'"

want something to rest them.

#### AIR MEDAL FOR NEW YORK M.D.

To Lieut. William Ward Evans of New Rochelle, N. Y., goes the honor of being the first Navy medical officer to receive the Air Medal.

The medal was awarded to Lieut. Evans for his participation in hazardous flights over enemy territory while squadron flight surgeon for a Marine aircraft group in the Solomon Islands.

He aided wounded pilots and made a study of

effects of combat strain on aviators.

#### WE ARE COMING TO THIS

The War Food Administration has announced new soap formulas. These formulas prescribed by that agency, it is claimed, will not make any appreciable difference in soaps we are using, because most of the soap manufacturers have already used them voluntarily.

The new formulas require a larger use of non-fat substances, principally resins which are substitutes and which, it is insisted, do a good job in providing

lather and water softening.

#### [Continued from page 328]

through examining and treating boys in the Children's Court Clinics of New York City. There are 256 cases in the series, which covers a six-year period dealing with sex offenses in boys between the ages of 7 and 16 years. Part 1 deals with the background of the delinquent, Part 2 is concerned with his personality, Part 3 shows the outcome, and Part 4 offers the author's conclusions. Statistical tables and case study forms are included in the appendix.

This book is of value primarily to those interested

in the subject of sex offenses.

STANLEY LAMM

The Therapy of the Neuroses and Psychoses. By Samuel H. Kraines, M.D. Second edition, thoroughly revised. Octavo of 567 pages. Philadelphia, Lea & Febiger, 1943. Cloth, \$5.50.

New material has been added to this edition to present the more recent thoughts on the shock therapies, the organic psychoses, and the neuropsychiatric aspects of mental hygiene induced by

the war.

The author maintains that common sense in the treatment of mental disease is the most important factor. However, since this is a book on therapy one cannot agree with him in his curt dismissal of the psychoanalytic method of treatment of the neuroses with the assertion that the freudian doctrines are "extremely fanciful".

The book will be of value to the medical student and the general practitioner for the practical suggestions it contains for the treatment of mental

disease.

JOSEPH L. ABRAMSON

Biological Symposia. A Series of Volumes Devoted to Current Symposia in the Field of Biology. Edited by Jaques Cattell. Volume X, "Frontiers in Cytochemistry." Octavo of 334 pages, illustrated. Lancaster, Jaques Cattell Press, 1943. Cloth, \$3.50.

This book consists of a series of papers presented at the Fiftieth Anniversary Celebration of the University of Chicago in September, 1941, and the Annual Meeting of the American Association of Anatomists in April, 1942.

It is a sober, serious, and thorough presentation of the modern concepts of the problems of the action and metabolism of sex hormones and of the hormonal factors in the inversion of sex. The cautious and restricted conclusions drawn by the leading authorities in the field, as presented in this book, are in sharp contrast to the somewhat extravagant and often disorderly conclusions drawn by some authors on the basis of meager clinical data.

The book is recommended as an authoritative summary of data and interpretation on this im-

portant endocrinologic problem.

ARTHUR SHAPIRO

Fundamental Exercises for Physical Fitness. By Claire Colestock and Charles L. Lowman, M.D. Octavo of 314 pages, illustrated. New York, A. S. Barnes & Co., 1943.

This work is a supplement to and includes selections from Corrective Physical Education for Groups by Lowman, Colestock, and Cooper. It is essentially a manual for those who have to do with body development of children. In the first part of the book the need for proper body training in the young

is shown by deductions from the findings of the Army Induction Centers.

J. C. RUSHMORE

A Textbook of Medicine. Edited by Russell L Cecil, M.D. Associate Editor for Diseases of the Nervous System, Foster Kennedy, M.D. Sixth edition, revised and entirely reset. Quarto of 1,565 pages, illustrated. Philadelphia, W. B. Saunders Co., 1943. Cloth, \$9.50.

The sixth edition of this textbook presents a number of new and important changes: It contains new articles on twelve subjects not previously covered; there are thirty-one subjects which have been rewritten; there are also introductory chapters to eight groups of diseases. The reviewer calls special attention to those on diseases of the blood and on virus diseases. A very convenient addition is the table of normal values for chemical examinations. The number of illustrations, though increased over the last edition, still is less than contained in a number of other American texts. This feature is a valuable aid to students. And last, but surely not least, is the change in the format—the text has been arranged in double column. To the student this will be the most acceptable change of all.

This textbook improves with every new edition. It has one hundred and fifty-four contributors, most of whom have shown commendable restraint in their special field. This volume, whether used as a textbook or for reference, will most adequately meet the needs of the former and the immediate require-

ments of the latter.

S. R. BLATTEIS

Reconstructive Surgery of the Eyelids. By Quarto of 160 pages, Wendell L. Hughes, M.D. St. Louis, C. V. Mosby Co., 1943 illustrated. Cloth, \$4.00.

This work was presented by the author as his "thesis for admission to the American Ophthalmological Society and represents the evolvement of methods for the reconstruction of new lids along with a historic review of the previous methods."

There are ten chapters, the first five being de voted to the history and evolution of skin grafts of various types and the remainder to description of specific types of operations, concluding with those devised by the author. It is copiously illustrated and well indexed, and there are 451 references of the control of ences. It is a mighty good book for an ophthalmic surgeon to have.

E. CLIFFORD PLACE

Managing Your Mind. By S. H. Kraines, M.D., and E. S. Thetford. Octavo of 374 pages. New York, Macmillan Co., 1943. Cloth, \$2.75.
The outbox contend that a better understanding

The authors contend that a better understanding of our complaints and the mechanism by which emotions are translated into symptoms will enable one to gain control of the body, the mind, and the emotions. The reader is expected to be able to alleviate the manifestations of an emotional dis-turbance because of the better understanding of

There is no doubt that many of the explanations given by the authors will prove of value to the readers, and they will feel encouraged by the explanation of their neurotic complaints; but the reviewer doubts the ability of the average person to benefit from the material contained in the book There are too many case histories and the medical language is sometimes too technical. JOSEPH L. ABRAMSON

[Continued on page 332]

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[Continued from page 330]

Collected Papers of the Mayo Clinic and the Mayo Foundation. Edited by Richard M. Hewitt, M.D. A. B. Nevling, M.D., John R. Miner, James R. Eckman, and Katharine Smith. Vol. 34, 1942 (published July, 1943). Octavo of 999 pages, illustrated. Philadelphia, W. B. Saunders Co., 1943. Cloth, \$11.

In spite of the war, the 1942 volume contains 183 articles, many of which are of special interest to the general practitioner, diagnostician, and general surgeon. Especially to be commended are articles on the newer therapeutic advances, such as the use of promin for tuberculosis; sulfa drugs, penicillin, and gramacidin for infections; heparin and dicoumarin for thrombosis; and vitamins. Many worthwhile articles dealing with the alimentary tract, genitourinary organs, ductless glands, blood, circulatory organs, skin, syphilis, head, trunk, extremities, vision, the nervous system, radiography, physiotherapy, anesthesia, and gas therapy, make this volume, as were its predecessors, the outstanding yearly postgraduate necessity.

M. A. RABINOWITZ

The Role of Nutritional Deficiency in Nervous and Mental Disease. [Res. Publ. Ass. Nerv. Ment. Dis., Vol. 22.1 Editorial Board, Stanley Cobb. M.D., chairman. Octavo of 215 pages, illustrated. Baltimore, Williams & Wilkins Co., 1943.

This book consists of a group of articles in the nature of a symposium. As usual in such contributions there is quite a bit of repetition, as regards introductory remarks and references to the literature, by each contributor. Thus there is a lack of the continuity found in a book written by one author. It is more like a medical journal, with independent articles and some duplication.

The book is divided into two parts. The first portion of the book contains contributions from the fields of the fundamental sciences, consisting of experimental work on vitamin deficiencies and pathology as relates to the central and peripheral nervous systems, as well as their interpretation, The second portion of the book deals with clinical observations and therapy.

There are a few articles that bear no direct relationship to the subject matter. However, there is much material available that makes this little book a very good addition to the medical library.

Morris Ant

Rehabilitation of the War Injured. Edited by William Brown Doherty, M.D., and Dagobert D. Runes. Octavo of 684 pages, illustrated. New York, Philosophical Library, 1943. Cloth, \$10.

The editors have presented a symposium including numerous prominent articles by various

cluding numerous prominent articles by various authors, many of the articles being reprints from

current medical and surgical journals. The field of neurology and psychiatry is well covered, and is followed by over two hundred pages on reconstructive and plastic surgery. This is followed by a section on physiotherapy, occupational therapy, and vocational guidance; also the legal aspects of rehabilitation.

The authors have endeavored to present to the profession the up-to-the-minute methods of treatment which might be employed in the reconstruction work which it is even now necessary to carry out in many of our government hospitals.

For those interested in this branch of medicine and surgery, the publication should prove a valuable addition to their library.

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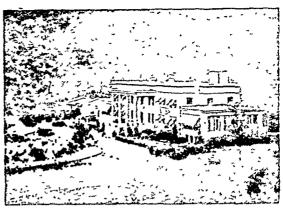
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Air schedules proposed for 1948, and earlier, from New York, include 2 hours and 40 minutes to Bermuda; 8 hours and 12 minutes to Mexico City; 13 hours and 48 minutes to London; and 23 hours and 12 minutes to Cairo. Proposed trips across the Pacific, the Atlantic, and the Mediterranean

appear like ferry rides.

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the record travel year of 1937, the United States in the record travel year of 1937, to say nothing of those journeying to other places, near and far. Now with buses about to sprout helicopters, plans for more airplanes and larger

capacity ships with greater speed, the number of eager Marco Polos who, come peacetime, will take to the world's travel trails cannot be estimated.

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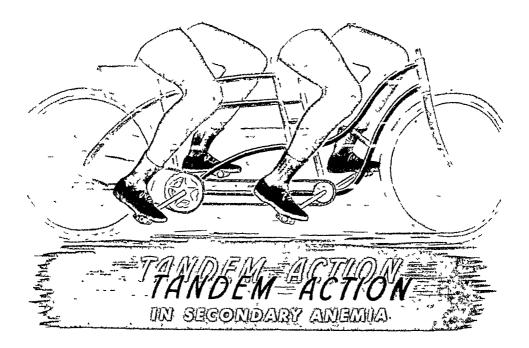
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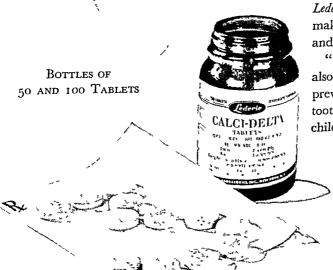
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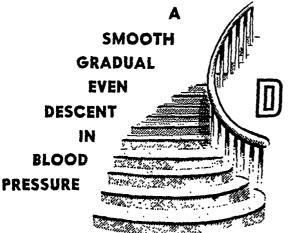
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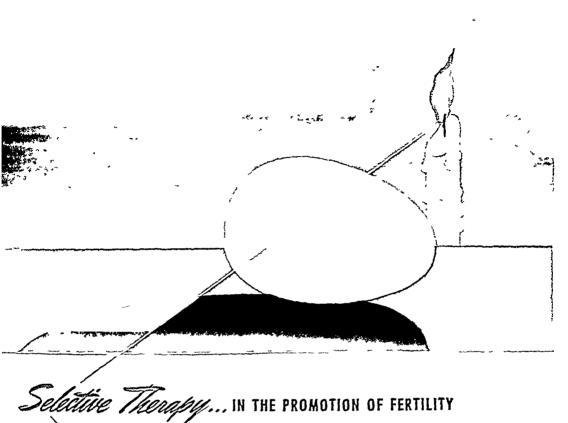
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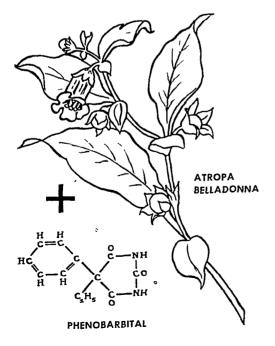
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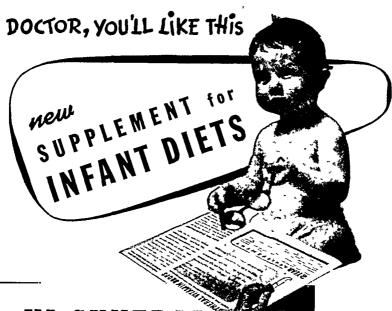


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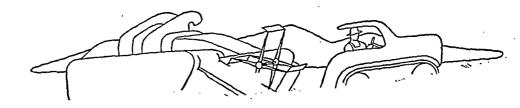
†Carlson, A. J., Science, 97, April 30 and May 7, 1943

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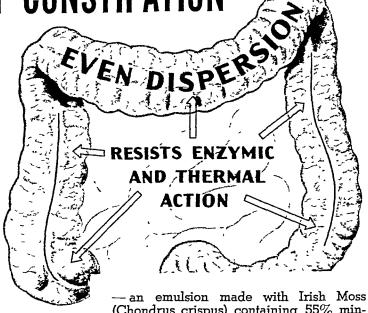
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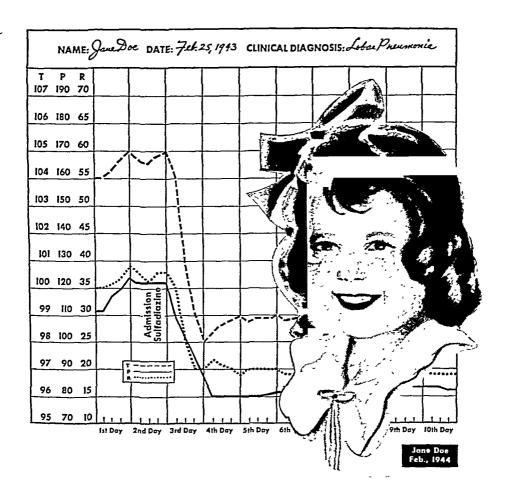
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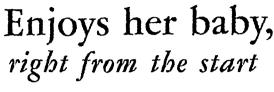
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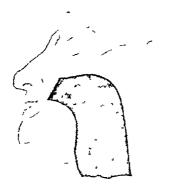
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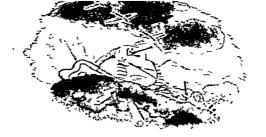
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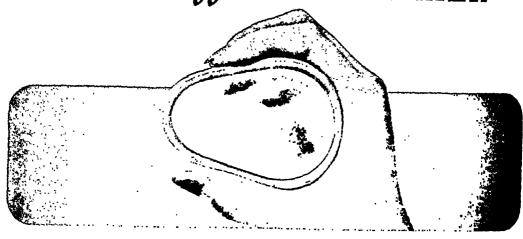
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"RAMSES" Flexible Cushioned Diaphragms are available in sizes from 50 to 95 millimeters in gradations of 5 millimeters. They are carried in stock by all reliable pharmacies.

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step most children are glad to take. Because H-O Oats are not only nourishing, they have a special pan-toasted flavor that children like and go for.



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### NEW YORK STATE JOURNAL OF MEDICINE

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**VOLUME 44** 

**FEBRUARY 15, 1944** 

NUMBER 4

### **Editorial**

#### Glaucoma as a Cause of Blindness

Of the 120,000 and more blind people in the United States, some 18,000 to 20,000 are blinded by glaucoma, and the chronic cases outnumber the acute by about ten to one. The early recognition of glaucoma is therefore of the greatest importance. Such early recognition is the subject of a paper by Dr. Harry S. Gradle, to be found on page 391 of this issue, which deserves careful reading by all general practitioners.

Early glaucoma of the chronic type may be symptomless. These patients may therefore never see an oculist during their preglaucomatous stage or during the early years of their chronic disease. But during this time they may consult their family physicians for other reasons. It is therefore important for general practitioners to recognize the fact that any patient past the age of 30 years is a glaucoma suspect unless found otherwise

#### Says Dr. Gradle:

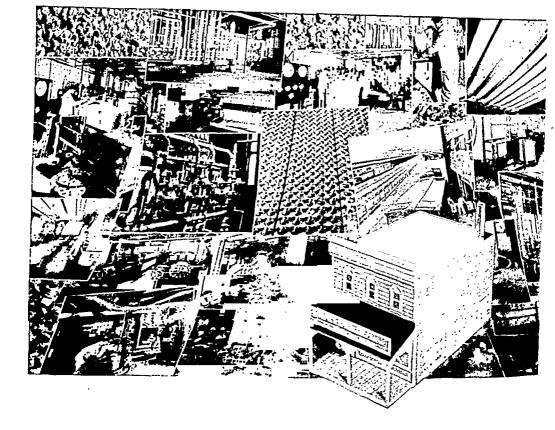
"It is a well-known fact that when chronic glaucoma is detected early, the ravages of the disease can be prevented in a fairly high percentage of cases, provided that the patient is faithful in respect to treatment and observation. But who is to detect it early? Obviously, the ophthalmologist. The general practitioner may suspect the existence of the condition, but lacks the necessary armamentarium and experience for accurate diagnosis before permanent damage has been done. A small percentage of nonmedical refractionists falls into the same class. The individual may have become thoroughly glaucoma-conscious through the fairly widespread publicity campaign, but the majority of such have a mental and not an ocular hypertension,"

The factor of greatest importance is that patients in the glaucomatous age group should be seen by an oculist. If this fact is recognized by the general practitioners it should be possible to reduce the toll of blindness from this cause to a considerable extent.

"All patients seeking ophthalmic advice have something wrong with them, either subjectively or objectively; otherwise they would not come to us for help. Among those people, glaucoma is found to be present in between 1 and 2 per cent, and consequently every ophthalmic patient (past the age of 30 years) is a glaucoma suspect, unless proved otherwise. And the negative proof is sometimes more difficult than the positive," says Dr. Gradle.

But even if the patient consults his oculist, the early diagnosis of chronic glaucoma is not without its pitfalls: for

"A pre-glaucomatous eye is one that does not present a definite pathologic picture, but does vary sufficiently from the absolute normal to arouse suspicion. Subjectively there are no symptoms. Objectively, the absolute depth of the anterior chamber may be somewhat less than the eye of the patient would indicate, or the angle of the anterior chamber is so acute as to border on the lower limits of the normal. From our goniometric measurements we believe that an angular value of less than 7 degrees is pathologic. The pupillary reactions are normal, albeit somewhat slow. There is no pathologic cupping of the disk, nor other visible evidence of intraocular pathology. The visual fields, both peripheral and central, are normal, as is dark adaptation. However, upon instillation of a mydriatic, the intraocular pressure increases 12 or 15 or 20 mm. Hg, but is easily controlled with miotics. Other provocative tests may or may not be positive. As can be seen, the majority of evidence justifying a diagnosis of pre-glauroma is on the negative



### WILLIAM JONES, PH.G.

When the doors of the Jones Pharmacy opened for business many years ago, young Mr. Jones, then just out of pharmacy school, had some definite ideas about the manner in which a prescription department should be conducted. He knew all about fresh crude drugs, and he could triturate, macerate, and percolate with the best of them. He provided sparkling glassware, and his finished prescriptions were things of beauty. He operated very successfully and the doctors liked to have him do their compounding.

Things have changed since that day when Mr. Jones opened his store. For example, along about 1923 quite a commotion was raised over something called Insulin, discovered by a couple of fellows up north. Mr. Jones immediately established an Insulin department. He was quick to realize, however, that the tons of equipment required for grinding pancreas glands and proc-

essing them through a complicated series of extractions, concentrations, and purifications had no place in his store. Mr. Jones's Insulin'is manufactured in Indianapolis, miles and miles away.

The production and standardization of Iletin (Insulin, Lilly) in its various strengths and modifications is but one of the many contributions Eli Lilly and Company has made toward the improvement of Pharmacist Jones's service to the medical profession.



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operation is not feasible, for absorption of nutritional materials is then too seriously curtailed to adequately maintain nutrition. This is the main reason why jejuno-ileitis must be treated medi-

Resection of the diseased segment is rarely indicated. Ileocolostomy, with exclusion of the involved segment, is effective in the vast majority of cases. Secondary operations have often revealed instances of healing of the diseased shortcircuited area. There was no mortality in 54 cases treated by ileocolostomy, with exclusion of the involved segment. Ileocolic resection resulted fatally four times in 23 such operations. Postoperative diarrhea is common because the intestinal fluids empty more directly into the colon. This is not to be confused with the pathologic diarrhea of disease. Lucid studies of this nature serve to make medical tasks simpler and easier in the cases of diseases as complicated and as little known as regional ileitis.

Guinzburg, L., and Garlock, J. H.: Ann. Surg. 116: 96 (Dec.) 1942

#### Correspondence

Neither the Publication Committee nor the Medical Society of the State of New York is responsible for the opinions expressed in this column. All letters for publication must bear the name and address of the correspondent.

201 United Office Building Niagara Falls, New York

Editor, NEW YORK STATE JOURNAL OF MEDICINE Dear Sir:

I read your Editorial, "Evolution" on page 143 of the January 15, 1944, issue with keen appreciation of how close you were hewing to the line of thought that must be coursing through many medical minds

When you have considered the possibilities of what industrial medicine—and political medicine—and preventative medicine—and the practice of medicine by hospitals—and the influence of the big insurance carriers on fee-schedules-can do to the postwar practice of medicine by a private physician; you will have jockeyed your reasoning processes to about where the airplane pilots in the armed forces reached long ago: i.e., that there will be too many applicants for the jobs available.

The 5,000 excess of medical graduates over normal years, plus the 'steen thousands of medical

refugees from every country in Europe, before, during, and after World War II is leading to but one thing: the unprecedented exploitation of the medical profession.

There is but one answer The Supreme Court of the United States has accepted the view that we are a trade. No declaration was necessary. Much has been made of the fact that the Supreme Court of the United States made no affirmative pronouncement on the point. The fact of the matter is that the trial could not have proceeded unless it had agreed to the contention that the practice of medicine is a trade

Hospitals, and insurance companies, and politicians, and labor unions, and professional philanthropists, would stop in their tracks if a group of doctors should apply for and receive a charter in the A. F. of L. The sooner we do that, the sooner we will begin to get somewhere.

RICHARD H. SHERWOOD

#### WAR-TIME GRADUATE MEDICAL MEETINGS CLINICS-DEMONSTRATIONS-LECTURES

Under the Auspices of The American Medical Association The American College of Physicians The American College of Surgeons

EDWARD L. BORTZ, Chairman 4200 Pine Street, Philadelphia, Pa. Wh. B BREED, Sec.-Treas 264 Beacon Street Boston, Mass.

Johns Hopkins Hospital Baltimore, Md

Authorized by The Surgeons General NOEMAN T. KIEK ROSS T. MCINTIBE THOMAS PAREAN

December 28, 1943

Dr. Peter Irving, Editor NEW YORK STATE JOURNAL OF MEDICINE Dear Dr. Irving:

Dr. Oswald R. Jones, Chairman of Regional Committee No. 3 (New York) of the War-Time Graduate Medical Meetings, has requested that we submit the enclosed schedules of programs to you.

This is a movement for the further mobilization of the finest medical teaching talent in the direction of the service hospitals; however, it is not exclusively a service affair, as civilian doctors in regions where programs are to be offered will be invited to attend and participate and it is the desire of all concerned that the civilian medical profession take part in the program.

Weekly programs have been presented at Camp Shanks and the Grand Central Palace for several months and have been most enthusiastically received by all who have attended. We should greatly appreciate your announcing these future courses in the New York State Journal of Medicine.

With many thanks. Cordially yours, EDWARD L. BORTZ, M.D.

SCHEDULE OF COURSES OF INSTRUCTION TO BE GIVEN AT GRAND CENTRAL PALACE, 480 LEXINGTON AVENUE, NEW YORK CITY

Time: 8:30 P.M. Date Speaker Jan. 7 Dr. Albert Van- The More Frequent Aller-(Repeated der Veer cies Jan. 14) Jan 21 Dr. Harold E. B. Significance of Normal and

(Reprated Jan. 28)

Pardee Abnormal EKG Tracings rather than the positive side. Even a three-hour tension curve may show no abnormalities.

"How, then, can we confirm the existence of such a condition as pre-glaucoma? Only by willful disobedience of the patient and long-continued observation. I have the records of three patients in whom I made the diagnosis of pre-glaucoma three to six years ago. They were given weak miotics to use and were warned of possible danger, although evidently not impressively enough. All were faithful with the miotics for three months up to two years, during which time no evidence of a developed glaucoma could be found on repeated examination."

We urge that all general practitioners familiarize themselves by means of any of the standard texts with the symptomatology of acute and chronic glaucoma in the interest of these thousands of patients who are on the way to blindness from this cause. Early recognition and competent investigation by an oculist remains, in the present state of our knowledge, the only hope for many.

#### Pneumonia Deaths

The recommendations of the New York City Pneumonia Advisory Committee, which will be found on page 409 of this issue, stress the importance of knowledge of the bacterial etiology of the disease. Deaths from primary pneumonia in the city "have far exceeded the average number of deaths which would be expected during this period of the year." The number of bacteriologic examinations of sputum performed by the Bureau of Laboratories of the Department of Health," states the report, "have been insignificant in comparison with the number of reported deaths."

Since the advent of the sulfonamides "it has been disappointing to note that . . . . there has been a gradually decreasing interest on the part of physicians in determining the bacterial etiology of pneumonia in their patients." Such bacteriologic examinations are an absolute necessity when patients

"do not respond favorably to 18-24 hours of adequate sulfonamide therapy." But to await the results of such therapy increases the difficulty of ascertaining the etiologic agent.

The availability of specific therapy for pneumonia has not by any means decreased the importance of sputum examinations, careful, repeated, physical examinations, the necessity for adequate nursing care, rest, oxygen therapy, maintenance of fluid balance and the treatment of pleural pain with codeine. It is recommended because of the shortage of nurses that all cases of pneumonia be hospitalized as early as possible.

Physicians are urged to study the complete report of the Advisory Committee in view of the seriousness of the large increase in the morbidity and mortality from this cause.

### Regional Ileitis

The last word on the subject of regional ileitis has not yet been spoken or written. Since this entity was first described its clinical features have been clarified and the indications for medical or surgical treatment have been more definitely outlined. This subject, however, still has ramifications and complexities which future studies should unravel and simplify. Recent surgical experiences shed further useful light on the treatment of this disease.

It is perhaps not sufficiently realized that there are two forms of regional ileitis. One is a strictly localized form, limited to the terminal 4 or 5 feet of the ileum, which is amenable to surgical therapy. The other is a more generalized enteritis, with more of the ileum included, a form calling for medical and not surgical treatment.

Since the therapy of the two types is so different, it is of the utmost importance to be able to differentiate between them. It must be further realized that jejuno-ileitis occurs frequently, and a thorough search for its presence should be made by careful intestinal studies. If surgery seems indicated after such studies seem to eliminate jejunal involvement, a thorough exploration of the small intestine should be performed at operation to make certain that the lesion is limited to the terminal ileum. Only after this operative search has been performed can therapeutic surgery be actually instituted. There may be many feet of normal intestine between the diseased jejunum and the diseased ileum, a fact of which the operator must be fully cognizant. If the disease extends too far, a short circuit

#### EMOTIONAL FACTORS IN ALCOHOLISM

EDWARD B. ALLEN, M.D., White Plains, New York

THERE have been many scientific and ob-L jective approaches to this problem, but such intellectual investigations, while often accurate, have never seemed to give sufficient consideration to the feelings, to the subjective content, or even to the dynamics of those afflicted. Statistics, knowledge of pathology, warnings, awareness of the inevitable consequences of alcoholism, and even repeated personal experiences have produced relatively little effect. Thus far the most successful efforts from a therapeutic standpoint have come through religious conversion or some form of ecstasy, replacing the patient's previous anxiety and restlessness. In other words, what creates an ability to stop drinking is that which causes an alteration in the feelings of those who have been so afflicted.

Let us study these factors in greater detail. There are many people who enjoy a glass of beer or wine, a cordial, a cocktail, or even hard liquor in moderate amounts. These people drink to alleviate temporarily the twinges of conscience or the uncertainties about meeting responsibilities. They are at least complacent and philosophic, if not entirely content with life. They do not wish to change their emotional status to any great extent. If they are convivially minded, they wish to remain that way. They do not desire to use their convivial pursuits as the vestibule to prolonged forgetfulness. They are sufficiently stable to feel content in the presence of their fellow beings. They are not obsessed with inferiority feelings or fears of what their associates know or may be thinking about them. When they are restless, their means of seeking relief are not overcompensations that result in either physical or mental disability. They are classified as moderate drinkers.

When we come to the alcoholics, we find a different situation. The alcoholics are addicted to hard liquor, preferably whiskey, diluted in their more refined moments and straight when realities become too much for them. They often enjoy conviviality with their friends, but such quasi adjustments are not satisfying. They are restless and ill at ease. Two or three drinks pep them up and make them feel more confident.

If there has been no undue stress for them during the day, they may remain content to stay in the

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943. From the New York Hospital, Westchester Division, White Plains, New York vestibule of forgetfulness, but more frequently they have an inner urge they cannot control that ushers them, accompanied by an alcoholic nepenthe, into the inner sanctum of complete oblivion.

It is our purpose to learn what the alcoholic is trying to escape from and why. If the sword of Damocles were suspended above his head by a hair, if his tissues were infiltrated with metastatic carcinoma, or if, as the victim of a revolution, he faced imminent arrest and execution, no one would be astonished if he turned for relief to the temporary forgetfulness engendered by alcohol, or if he attempted to extend that forgetfulness into complete surcease from his tangible dangers through prolonged unconsciousness by means of continued indulgence.

But if he came from stable stock, if he had had a satisfactory college career, if his marriage had produced healthy issue, if he had achieved recognition in his chosen profession and had then taken to excessive drinking, he would have been immediately subject to critical and derisive comment, betraying perplexity and surprise on the part of his admonishers. He would be the only one aware of the fact that latent fears and sensations, even more terrible because of the subtle disguise and obscurity of their cause, were arising within him and producing greater distress than the externalized ones so readily apparent to others. It is one of the greatest tragedies of life that we can all share externalized dangers with others, but that internalized ones we have to face more or less alone. The alcoholic feels as justified in drinking under such conditions as he does when the causes are obvious, but he is as handicapped in explaining such phenomena to his associates as they are in understanding them, because of his repressions and his ignorance of their functioning.

The alcoholic is responsible for the attitude directed toward him by well-integrated individuals. He refuses to betray how insecure he feels within for fear of ridicule or contempt from without. He overcompensates and disguises by boasting of the attractive features of his alcoholic exploits and of his ability to extract satisfaction out of them. He tries not only to awaken our sympathy but at the same time to awaken our envy of him in posing as a man of the world and the possessor of a secret sophistication into which we can never be initiated. How often we hear him exclaim, "You

Feb. 4	Dr. Algernon B.	External Diseases of the	Jan. 20	Dr. John B. Dun-	Medical Ophthalmology
(Repeated	Reese	Eye and Glaucoma		nington	•
Feb. 11)			Jan. 27	Dr. George C.	Common Skin Diseases in
Feb. 18	Dr. William P.	Simple Laboratory Pro-		Andrews	Soldiers
(Repeated Feb. 25)	Thompson	cedures	Feb. 3	Dr. Byron Stookey	Low Back Pain and Sciatic Syndrome, Discussion of
March 3	Dr. Alan DeFor-	Foot Strain			Causes and Treatment
(Repeated March 10)	est Smith		Feb. 10	Dr. A. Benson Cannon	Syphilis
March 17	Dr. George C.	Common Skin Diseases in	Feb. 17	Dr. J. Burns Am-	Sequela of Acute Pulmon-
(Repeated	Andrews	Soldiers		berson	ary Conditions
March 24)			Feb. 24	Dr. C. Cary Eg-	Rheumatic Cardiac Dis-
March 31	Dr. A. Wilbur	Peripheral Vascular Dis-		gleston	ease, Diagnosis and
(Repeated	Duryce	ease	<b>'</b>		Treatment
April 7)			March 2	Not yet an-	Not yet announced
April 14		General Surgical Approach	35 10	nounced Dr. Robert Loeb	Present Status of Human
(Repeated	mann	to the Abdomen	March 9	Dr. Robert Loca	Serum Albumin and
April 21) April 28	De Arthur Kride	Disorders of the Low Back			Plasma
(Repeated	Dr. Arthur Kinda	Disorders of the now Dack	March 16	Not vet au-	Not yet announced
May 5)			Marca 10	nounced	-
May 12	Col. Douglas T.	Neuropsychiatric Problems	March 23	Dr. Herbert Cha-	Hypertension
(Repeated	Thom	in the Army		sis	.1
May 19)		-	March 30	Not yet an-	Not yet announced.
•				nounced	Surgical Bacteriology in the
SCHEDULE O	r Courses of Ins	TRUCTION TO BE GIVEN AT	April 6		Treatment of Surgical
CA	MP SHANKS, ORANG	EBURG, NEW YORK		leney	Infections
	Time: 8	P.M.	April 13	Dr. Walsh Mc-	Present Status of Use of
			April 10	Dermott	Sulfonamides in Surgers
Date	Speaker	Subject			and Medicine
Jan. 6	Dr. Dana Atch-	Medical Shock	April 20	Dr. Emery A.	Anesthesia
, , , , , , , , , , , , , , , , , , ,	ley		-	Rovenstine	Liatria Problems
Jan. 13	Dr. Arthur H.	Nephritis	April 27		Neuropsychiatric Problems in the Army
	Fishberg			Porter	In the Aim)

Dr. Peter Irving Medical Society of the State of New York Dear Dr. Irving:

A number of physicians and dentists in New York State have responded to the request issued by the New York State Historical Association for early equipment to be used in furnishing model offices of years ago. These office reconstructions will be established in the museum of the Association at the Cooperstown headquarters, immediately after the

Although some material has already been given, additional articles are needed, for there are many phases of both professions which are not represented, as yet.

Any physician or dentist who has any anti-quated instruments can give to the Association

articles which are too valuable or too historical to be of salvage quality. Even published works are requested, for changes in methods can be traced through the published word. Any doctor or dentist should be proud to have his gifts represented in this museum display which will be a permanent record of

the early days of his profession.

All donors will be given due credit and the articles will be placed with the exhibit already assem-

Donations or communications may be addressed bled. to Miss Janet R. MacFarlane, New York State Historical Association, Cooperstown, New York, or to Dr. T. Wood Clarke, 7 Cottage Place, Utics,

New York.

Sincerely yours,

T. WOOD CLARKE

Editor, New York State Journal of Medicine Dear Sir:

There is a critical need for medical and surgical supplies that may lie hidden and forgotten in your office: discarded or tarnished instruments, surplus drugs, vitamins, infant foods. Collected, packaged, sent to the Medical and Surgical Relief Committee, they can play a vital role in its program of medical relief for the armed and civilian forces of the United

Surgical instruments and medicines are sought after by physicians and pharmacist's mates of our Navy—are hungrily snatched by the medical corps of our Allies. The work of war-zone hospitals and welfare agencies is too often crippled by the lack of medical supplies. Community nurseries in this country, refugee camps abroad, cry out for vitamins and baby foods for their ill-nourished charges.

In the pages of this JOURNAL you may have read about the Committee. It has supplied over 900

sub-hunting and patrolling ships of the Navy with emergency medical kits; equipped battle-dressing stations on battleships, destroyers, and cruisers. The Committee's roll-call of medical requests—not one of which has been translated and requests—not one of which has been turned away—reads like a world geography: the Fighting French in North Africa and Tahiti; the Royal Norwegians in Canada and Iceland; the West Indies; South and Central Africa; China; India; Great Britain; Yugoslavia; Greece; Syria; Russia; Alaska; and, of course, the United States United States.

To meet the demands that pour into headquarters, the Committee needs all types of instruments, especially clamps, scalpels, forceps, and all kinds of drugs, from iodine to sulfa products. By contributing what you can be sufficient to the contribution what you can be sufficient to the contribution of the contributi ing what you can spare, you will help speed another shipment of sorely needed medical aid.

Very sincerely yours,
JOSEPH PETER HOGUET, M.D., Medical Director

#### EMOTIONAL FACTORS IN ALCOHOLISM

EDWARD B. ALLEN, M.D., White Plains, New York

THERE have been many scientific and ob-Liective approaches to this problem, but such intellectual investigations, while often accurate, have never seemed to give sufficient consideration to the feelings, to the subjective content, or even to the dynamics of those afflicted. Statistics, knowledge of pathology, warnings, awareness of the inevitable consequences of alcoholism, and even repeated personal experiences have produced relatively little effect. Thus far the most successful efforts from a therapeutic standpoint have come through religious conversion or some form of ecstasy, replacing the patient's previous anxiety and restlessness. In other words, what creates an ability to stop drinking is that which causes an alteration in the feelings of those who have been so afflicted.

Let us study these factors in greater detail. There are many people who enjoy a glass of beer or wine, a cordial, a cocktail, or even hard liquor in moderate amounts. These people drink to alleviate temporarily the twinges of conscience or the uncertainties about meeting responsibilities. They are at least complacent and philosophic, if not entirely content with life. They do not wish to change their emotional status to any great extent. If they are convivially minded, they wish to remain that way. They do not desire to use their convivial pursuits as the vestibule to prolonged forgetfulness. They are sufficiently stable to feel content in the presence of their fellow beings. They are not obsessed with inferiority feelings or fears of what their associates know or may be thinking about them. When they are restless, their means of seeking relief are not overcompensations that result in either physical or mental disability. They are classified as moderate drinkers.

When we come to the alcoholics, we find a different situation. The alcoholics are addicted to hard liquor, preferably whiskey, diluted in their more refined moments and straight when realities become too much for them. They often enjoy conviviality with their friends, but such quasi adjustments are not satisfying. They are restless and ill at ease. Two or three drinks pep them up and make them feel more confident.

If there has been no undue stress for them during the day, they may remain content to stay in the

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943. From the New York Hospital, Westchester Division, White Plains, New York.

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vestibule of forgetfulness, but more frequently they have an inner urge they cannot control that ushers them, accompanied by an alcoholic nepenthe, into the inner sanctum of complete oblivion.

It is our purpose to learn what the alcoholic is trying to escape from and why. If the sword of Damocles were suspended above his head by a hair, if his tissues were infiltrated with metastatic carcinoma, or if, as the victim of a revolution, he faced imminent arrest and execution, no one would be astonished if he turned for relief to the temporary forgetfulness engendered by alcohol, or if he attempted to extend that forgetfulness into complete surcease from his tangible dangers through prolonged unconsciousness by means of continued indulgence.

But if he came from stable stock, if he had had a satisfactory college career, if his marriage had produced healthy issue, if he had achieved recognition in his chosen profession and had then taken to excessive drinking, he would have been immediately subject to critical and derisive comment, betraying perplexity and surprise on the part of his admonishers. He would be the only one aware of the fact that latent fears and sensations, even more terrible because of the subtle disguise and obscurity of their cause, were arising within him and producing greater distress than the externalized ones so readily apparent to others. It is one of the greatest tragedies of life that we can all share externalized dangers with others, but that internalized ones we have to face more or less alone. The alcoholic feels as justified in drinking under such conditions as he does when the causes are obvious, but he is as handicapped in explaining such phenomena to his associates as they are in understanding them, because of his repressions and his ignorance of their functioning.

The alcoholic is responsible for the attitude directed toward him by well-integrated individuals. He refuses to betray how insecure he feels within for fear of ridicule or contempt from without. He overcompensates and disguises by boasting of the attractive features of his alcoholic exploits and of his ability to extract satisfaction out of them. He tries not only to awaken our sympathy but at the same time to awaken our envy of him in posing as a man of the world and the possessor of a secret sophistication into which we can never be initiated. How often we hear him exclaim, "You

don't know anything about it unless you have drunk yourself."

He will tell you of his misdemeanors as though they had positive values. He will disclose facts about himself of which you are willing to be tolerant or about which you have learned to have some appreciative understanding, but there are many others about which he remains silent. You elicit little more than, "It was a sorry mess." Even when relating his past history, he is so perturbed about what he may inadvertently disclose that he gives you a disconnected account that is vague and rambling. He has a convenient amnesia for the factors about which he is most sensitive. When he is through and you attempt to review the information he has given, you find yourself at a loss to put the facts in proper chronologic sequence. You find he has related the times he was clever in circumventing and getting the best of others, but you have little evidence with which to dwell upon his personality inferiorities. There are as many lacunae in his narrative as there are lakes dotting the map of Finland.

Surprising as it may seem, he will frequently discuss his psychosexual maladjustments in an apparently frank manner. But there is increasing evidence of camouflage as he proceeds. He will boast too freely of his virility and of his amorous conquests, but at the same time he will reveal a contempt for women in general except for his mother and possibly his wife or sister. Yet he will betray an irritability at some of their personality traits and thus disclose his marked ambivalence toward even those most dear to him. He likes them when they contribute to his comfort and gratify his narcissistic desires, but he really has little use for them otherwise. He will show you pictures of his children and gifts he has made for them in the occupation department of a mental hospital. This helps him to convince you of his sincerity. Later you learn that the pictures were sent by his wife without his solicitation and that he influenced others to contribute the greater share in the fabrication of the gifts. But soon further evidence is forthcoming that his real attitudes and feelings fail to escape his lips. He will tell you long before you have time to ask that he is "no damn homosexual" and that he has always hated perverts. Yet it seems inconsistent that he has been especially subject to their advances and has lived in an atmosphere where they flourish. There are many exceptions to these reactions among the alcoholics, but the general behavior pattern is as described.

While he will discuss psychosexual problems as disclosed above, he is more apt to be strangely reticent about his conflicts with the law or his flaunting of what constitutes socialized and civic authority. He rarely volunteers any accounts of such experiences and minimizes their significance. We get more tangible evidence of his automobile accidents and drunken brawls from the numerous scars on his body than from what he spontaneously relates.

We must be aware of these defense mechanisms and learn how to penetrate them if we are to be of aid to him in better understanding himself. But we must also be aware of his extreme sensitivity and avoid too direct or forceful an approach. The alcoholic knows far better than we our own limitations. He soon learns that we are also on the defensive in pointing out his difficulties. He knows that when we preach to him or admonish him with evident assurance, we are overcompensating. We must refrain from any selfrighteous or "I-told-you-so" attitude. He is aware that our irritability and anger are only means of covering up our ignorance. He has already learned this from his father and those who play such a role toward him in a symbolic form. The more neutral our attitude, the less display of feeling and especially undue interest, the better. Let the facts of disconcerting situations, arising under your care, speak for themselves, but let your patients know that you are aware of these facts. Be understanding, but not sorry for them. Remember, we have yet to prove that the reason we are not all alcoholics may be biologic rather than moral.

It is most disconcerting and sometimes perplexing to try to understand how the alcoholic can often abstain for long periods and then unexpectedly, at least in accordance with our philosophy of life, suddenly imbibe. But further study and observation reveals this: as long as the alcoholic is content within, he can with comparative ease refrain from drinking. Drinking is a matter of relatively little concern to him when things are going according to his liking and he is under no strain and in no situation in which his weaknesses will be revealed in competition with others.

When we try to study the situations under which the inebriate is most able to remain sober they appear at first somewhat paradoxical in character. Of course it is apparent that he is going to be more complacently abstinent when he is able to create a favorable impression without too great conscious effort. It will also be true if the possibility of any element of failure can be justified by an alibi which will appear consistent to others. Frequently it is just because he has such an alibi that he remains sober.

For example, the alcoholic is able to create a favorable impression by appearing honest and sincere in looking for employment. He easily

arouses sympathy in this manner. His friends wonder how he can keep sober and remain cheerful when everything would appear to be conspiring to keep him out of employment. But they little known the quality of his feelings hidden within. The thing which is troubling the alcoholic is what he is going to do when he gets the employment. Then he will be forced to stand on his own feet, to compete with others, to buckle down to a routine that is not to his liking, and, what is worse, the only way he can elicit any sympathy or admiration now is by sticking to his job, something he does not wish to do.

After he has held this job a few weeks or months, he ceases to attract any further attention to himself and life becomes humdrum. But getting drunk again serves his strongest desires. It not only gets him out of a situation that he dislikes, but it also stirs up commotion and comment about him, which he has missed. It also prevents his having to offer the true explanation of his weaknesses to his friends—namely, that he is not competent to make the sacrifices necessary for success. It is easier to attribute it to the false one of too great a craving for alcohol.

When you can get an alcoholic to be honest about himself, he will tell you that he cares little for the taste of alcohol or for the joys of drinking per se but that he is anxious for its effect. I have had alcoholics admit that when emotionally distressed they have had to force liquor down their throats, often in spite of frequent regurgitation, and that they would have been as satisfied if they could have had it instilled up their rectums or injected under the skin. The craving for alcohol in the alcoholic is more a craving for the habit pattern of reaction which has offered him relief from his inferiority feelings in the past than for any anticipated sensuous satisfactions of the palate in the present.

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ئىرى ئارى ئالەر I have stressed only a few of the emotional factors associated with the problem. To enumerate all of them and their integrated complexities would be as hopeless a task as trying to effect a complete psychoanalysis.

Dr. Adolph Meyer feels that a life situation for every psychopath is possible, although it is difficult at times to find the proper life situation.

I believe that we can include the alcoholic in the same category. Consequently, in this paper I wish to present some case material which will offer evidence of the factors enumerated above and illustrate in some degree at least what it is that spells success or failure in the future life of the alcoholic after he has left the hospital.

## Case Reports

The following case reports are those of three patients who were treated by me in the New York Hospital, Westchester Division, for alcoholism, without psychosis.

Case 1.—Mr. F. A. E., a lawyer, aged 33 years and single, was referred to the hospital because of excessive drinking over a period of fifteen years, finally resulting in embezzlement of money from his legal clients and an altercation in a cheap hotel.

His deceased father, a self-made man with little schooling, had become chief counselor for a large railroad system. His mother, in her middle seventies, is a timid, sensitive woman who has always been overprotective and oversolicitous of the patient, in a nagging manner.

Mr. E. showed a marked timidity in early years, largely engendered by his mother's emotional attitude, unchecked by the more stable but too busy professional father. When his mother made him wear "sissy clothes," he retaliated with temper tantrums. She tried to isolate him from the usual boys' recreations because she hated to see him grow up. Consequently he ran away from children's fights and was teased by his playmates. When he tried to assert himself by running, swimming, or climbing trees, he was spanked. He was always punished for trying to be like others of his age and of his social milieu. He cried easily, even in his twenties, when disappointed. He felt more secure with his mother, although he never admired her as he did his austere, undemonstrative father, whom he feared. He matured at the age of 12, when he was taught

the means of autoerotic gratification by his play-

mates, a practice that was continued moderately

into his adult years. In unsuccessfully trying to break away from the feminine dominance of his

mother, he had not tried to facilitate the process by

any strong emotional ties to any other member of

her sex.

When he entered college at 18, drinking first became a problem for him. Later he drank and gambled so extensively that he was asked to leave, but he was reinstated and controlled his inferiority feelings sufficiently to graduate fourth in his class. This timid, sensitive youth now entered law school to please his father but without any particular desire or interest. A year later he was rewarded with a trip around the world. This only helped to inculcate in him a desire for rewards before he had obtained any stabilizing objective. But he returned from this trip, which was punctuated by incapacitating drunkenness, to graduate from law school. As soon as he started to compete with others in the legal profession, the old inferiority feelings that had arisen in earlier years with his playmates were revived, and he drank, lost many positions, and later embezzled from his friends to pay excessive gambling debts. When his father died, his mother became more possessive. His only relations with women were with prostitutes and such intimacies had to be stimulated by liquor.

He came to the hospital on the advice of friends. During his residence there, he learned two things: first, that he must break away from his mother-dependence, and, second, that he was not sufficiently well endowed emotionally to try to emulate his father as a lawyer. When he left the hospital six months later, this was forcefully brought home to him by his having to seek relief from his sensitiveness and fears in alcohol, after only two weeks' work as a clerk in a law office. Even later, as a salesman, he lacked any competitive spirit, but he was not under the close scrutiny of others, so he refrained from drinking. Although geographically separated from his mother, he still maintained his dependence by receiving a small sum from her weekly for room and board.

In 1939, he became actively connected with "Alcoholics Anonymous," an organization of alcoholics who offer mutual assistance to one another to stop drinking, and at once a change for the better was noted in his attitude although he gave the hospital credit for having initiated this attitude. A few months later he returned to the hospital and talked before a group of physicians about how both the hospital and "Alcoholics Anonymous" had helped him, although their efforts were entirely independent of each other.

On February 9, 1943, a note was received from him which stated that he took his last drink May 9, 1939, and that he had been employed in a legal position but under supervision from December, 1939, until August, 1941, when he entered the Navy, later to become a lieutenant. He had been married since March 10, 1941, "apparently successfully." This case presentation illustrates the fact that after a patient leaves a hospital for treatment as an alcoholic, he may resort to drinking again for a time but with continued effort may finally make good.

Case 2.—Mr. P. W. J., an insurance manager, legally separated from his wife, came to the hospital willingly on the advice of a former alcoholic patient to seek relief from his alcoholism of eleven years' standing, which had resulted in increasing financial incapacity.

His father, who was deceased, had been alcoholic but dominant and successful. His mother was living. She was unemotional, introverted, and religious. In this case the patient had had difficulty adjusting to an older brother who was successful but was considered an intolerant total abstainer by the patient.

Life was at first happy for this patient, but he soon learned the value of temper tantrums in getting what he wanted from his mother. When he started to attend school, the other children teased him because of his short stature, his protruding upper teeth, and his receding lower jaw. His first obvious feelings of inferiority were developed. Later he stubbornly resisted a dentist's effort to produce better occlusion. He matured at the age of 14 and passed through an autoerotic period without conscious conflict. He began to drink in college. Shortly after he graduated, at the age of 22, his father died. He entered the latter's insurance business and worked under the direction of his "intolerant" older brother, with varying degrees of success, for eleven years. He at once increased

his alcoholic indulgence, and this became excessive following his marriage at the age of 23. The birth of a son the following year added to his responsibilities. His drinking led to a legal separation from his wife and to the breaking of his business association with his brother when he was 33. During the next two years he had two positions, but they were soon terminated because of his alcoholism. An institutional residence of a month and contacts with various physicians affected little relief. He frequently returned home to his mother for comfort and advice.

In the hospital he was generally content. He was passive. He appreciated that the longer he remained the better he felt. In the hospital he was associated with other patients who had as marked inferiority feelings as his own. He conceived the idea, under some suggestion, that for him or any other alcoholic to be successful it would be necessary for them never to drink again. He believed he had a talent for writing. He developed his ideas about alcoholism in a paper. He was a voluntary and helpful crusader in the hospital among the other alcoholics, who agreed that his remarks were pertinent. He admitted to his hospital physician that he considered himself a little superior to the other alcoholics, or at least wiser than they. This gave him a feeling of comfort. When he left the hospital after six months' residence, he remained comfortable. He had his paper published anonymously. Later he also returned to the hospital and addressed a group of physicians the same evening as the patient mentioned in the first case history.

On January 22, 1943, a letter was received from the patient's brother which stated, "I am certain that he has not taken a single drop since he left White Plains five years ago. He has completely rehabilitated his entire life, is married again, to a fine woman, and now has a young son. He is working for me and doing splendidly." A similar letter was received from the patient. It should be noted that when the patient stopped drinking, his brother no longer appeared intolerant.

Case 3.—Mr. H. T. N. F., a chemist, aged 33, single, came to the hospital because of chronic alcoholism complicated by anxiety symptoms and gastrointestinal distress.

Mr. F. was of mixed English and Jewish stock. He had many relatives who were alcoholic or nervous. His father, who was dead, had been nervous and excitable, but through persistent application he had become a college president. His mother has remained nervous and depressed throughout her life.

The patient's birth was difficult. He soon presented a feeding problem and has been subject to attacks of gastroenteritis with diarrhea all his life. Small for his age, he was self-conscious, solitary, and he refrained from competitive sports with others. He had temper tantrums and night-mares.

Masturbation had continued from childhood. At the age of 7 he indulged in oral sexual play with an older girl and developed lasting feelings of guilt. He resented the family affection for a younger brother. When he was 12, he began to read to excess, to daydream, and to insist upon smoking. He attended public high school rather than a preparatory academy, as he felt more comfortable with boys with fewer financial resources. He entered the college of which his father was president, but he took no advantage of this relationship. When he was 18, his younger brother died. Mr. F. was disappointed when he did not get the anticipated added attention, for his mother was depressed. He disliked his father's relatives on the grounds that they were too Jewish. He also resented his mother's domineering and possessive attitude.

Starting at the age of 12, he had a series of operations for herniae, a tonsillectomy, an appendectomy, and finally, at 26, an operation for a left varicocele followed by a prostatitis, doubtless the result of an acute gonorrhea a few years previous. He desired to follow in his father's profession as a scientist, although his interests were more crudely mechanical.

His alcoholism began when he was 17. He discovered he was less shy and more comfortable with others after indulgence. This delayed his college graduation, led to a jail sentence for driving when intoxicated, and prevented any successful occupation. He would get in touch with his mother when in difficulty, and she would come to his financial assistance. He finally went to a general hospital for a nonspecific colitis, and then entered the Westchester Division of the New York Hospital because of the associated alcoholism and neurotic symptoms. He had also a history of repeated mild depressions.

In the hospital he learned to control his attacks of anxiety, to exert more control over his depressive moods, and to appreciate the emotional cause of his gastrointestinal symptoms. But it took several months for him to accept his further limitations and to realize the necessity of refraining from alcohol because of them. He was in residence for ten months.

As he improved he was allowed to make extended visits away from the hospital. It then became apparent that he was not qualified to follow in his father's footsteps as a scientist or even to become a successful commercial chemist. It was also necessary for him to learn the advisability of keeping away from his neurotic mother. He was taught to accept a less pretentious but more comfortable role in life. He gave up his aspirations for a high salary and a luxurious habitation. A compromise for his scientific and mechanical interests was effected in his obtaining a position in the optical department of a large city store. He has held this position for nearly five years and has been advanced in salary. He remained abstinent until about two years ago, when he married. Then he became discontented with his employment and started to drink again, but moderately. He has occasionally called at the hospital for advice and has continued to make a satisfactory marital adjustment and to remain employed. When this patient increased his responsibilities through marriage, he again had difficulties of adjustment which caused him to feel insecure.

A review of these three case histories shows that the alcoholic can make an adjustment if he will accept his limitations and live in accordance with the restrictions which they place upon him. Each case of alcoholism presents its own individual problem, which makes it difficult and inadvisable to generalize. The mechanisms in each instance vary. But the three patients whose histories we have outlined with special attention to the emotional factors involved came from approximately the same cultural, social, and intellectual levels of society. While each of these patients handled his problem somewhat differently, there were certain causative factors that were common to all. In each instance the patient had a successful father, whom he was trying to emulate. This was too great a task for his qualifications. The first two effected a compromise by continuing in the same employment that their fathers had pursued, but they accepted subordinate roles. The first, until he entered the Navy, functioned as a lawyer, but in an assistant capacity and under close supervision. The second returned to his deceased father's insurance business, but accepted a less responsible role under his brother and was able to obtain the latter's approval when he stopped drinking. He also became better adjusted emotionally after his divorce and subsequent marriage to another woman. The third patient made a satisfactory adjustment to a different form of employment from his father's as long as he accepted his limitations and worked under supervision. But as soon as he complicated his social and instinctive life with marriage, he returned to drinking as a solace and is not satisfactorily adjusted. These patients have done better when they have accepted subordinate roles and worked under supervision than when they have tried to be directly responsible for their activities.

They have all been able to break away from an early dependency on their mothers and to marry. The mother in each case had assumed a dominant and solicitous role. She appeared to compensate for any lack of opportunity she had to shower affection on her successful and busy husband by giving it to her inferior, alcoholic son. She hated to see him grow up. In youth she indulged him in his temper tantrums and started giving him his way to conciliate him and keep him within the bonds of her affection. The alcoholic sees these mechanisms in his mother in later years, but they have become habit-forming and he cannot break away from them. The mother offers the comfort of an assured dependence, while at the

same time she awakens resentment. Consequently the alcoholic develops an ambivalent attitude toward her. The mother wants to keep him away from other children in his youth, and in later years seems more content to have him associate with women of such questionable standards as to preclude marriage, rather than to form too amorous intimacies, however conventional, with those of his own social level.

As regards the father, he is generally so busy with his successful pursuits that he has little time to give his son. The father entrusts the son's early care to the mother or the servants and then in later years is surprised to find that his son is not like himself and that he has dissimilar interests. The father has been strengthened and tempered by facing the stern realities of life and by learning how to meet them through his own efforts. He has felt that his son should be shielded from similar laborious tasks and necessities. He does not want his son to have to go through what he has experienced. But the father forgets that in sheltering the son and in giving him opportunities for which he has not exerted himself in any way, he has left him a weakling and a novice in any competitive effort.

The patient who can be helped—that is, the patient who is sufficiently intelligent and willing to be helped-must be made aware of these factors. He should be taught to think about them without becoming emotionally upset. He should be made aware of the necessity of seeking some occupation or position in which he can feel content about his exertions and in which they are not attended with ever-disturbing conscious effort. I believe he should be emancipated from his parents as much as possible, made to stand on his own feet, and taught to succeed through his own effort. If married, he should face that obligation and not seek to escape it through divorce as he has escaped so many other obligations through alcohol.

And in closing I offer to him and to you the statement of Sir Horace Walpole, "Life is a tragedy to those who feel, a comedy to those who think."

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#### Discussion

Dr. Albert B. Siewers, Syracuse, New York—I wish to thank Dr. Allen for the privilege of discussing his paper and to express the pleasure which I derived from reading it—I found, as he was developing his thoughts on the emotional factors in

alcoholism, that they were very similar to my own I am of the conviction that alcoholism is always an emotional problem and should be studied and attacked as such. This problem shows the same wide range in individuals with mental problems who are not alcoholic. It is a symptom of an illness, and the handling of the problem should be directed against the basic disease.

It has been my experience that these individuals have strong oral traits. As adults, they are fond of discussion, singing, and tobacco-smoking, and they have gastrointestinal complaints. While many of them are often men and women of some accomplish ment, the majority display a rather typical lack of ambition or at least the absence of a concrete plan for living. Usually their jobs do not carry with them a great deal of responsibility. It is well known that many display latent homosexuality, which has been encouraged by an almost uniform type of mother whose emotional attitude was one of overindulgence, spoiling, and pampering This leads to a feminine identification with a paucity of common masculine traits, such as aggression and direction of purpose. In addition, they prefer and are more at ease in a masculine type of environment In their relationships with the opposite sex, these patients display poor adjustments, best seen in a weak heterosexual drive. They show an inability for maintaining normal relationships with socially accepted women.

Therapeutic approaches have been scientific in procedure. The religious approach or the Alcoholic Anonymous has some ment, and good results can be looked for in those who are essentially psychoneurotic. The schizophrenic patients are definitely a greater problem. Recently I had an opportunity to watch the "conditioned-reflex treatment" in a patient who for years had been refractory to institutional treatment and to religious and psychotherapeutic approach by competent Where the latter had completely psychiatrists. failed, the conditioned-reflex treatment succeeded in altering alcoholic habits and, apparently, has in some mysterious way given the patient some insight into his conflicts. Still more recently some good results of Alcoholics Anonymous have been The great reservoir of chronic alcoholics is found in the courts

Miller\* reviews the subject and stresses a threepoint program consisting of medical treatment, psychotherapy, and social reorientation and rehabilitation. His methods are quite ingenious.

In spite of all treatments, however, the most sensible approach is to obtain knowledge of the underlying psychopathology so that the psychiatrist may aid the patient in appreciating emotional insight. To quote Paul B. Brooks in his "Dr Jones Says" column in the Health News. "But it's like a dog with a tin can tied to his tail; the faster he runs the more commotion there is to escape from. If the dog's got sense enough he'll stop when he comes to somebody he knows is his friend and let him untie the can"

<sup>\*</sup> Miller, M M: J.A M A. 120. 271 (Sept. 26) 1942

# THE POSTCONCUSSION SYNDROME: PROGNOSIS AND EVALUATION OF THE ORGANIC FACTORS

PETER G. DENKER, M.D., New York City

THOUGH all neurologists can readily attest to the frequency with which cases of the "postconcussion syndrome," or "post-traumatic encephalopathy," are encountered in practice, too little factual data as to the prognosis in these patients are available. As one reviews the voluminous literature on this subject, one is struck by the comparatively few studies of a follow-up type in so important a subject. There is still too much difference of opinion between capable men on the cause of these often prolonged symptoms, and it was with the hope of possibly shedding a bit more light on this controversial matter that the present study was undertaken.

Such a follow-up study of 100 consecutive cases seen by the author in the past twelve years of practice has been attempted. Only patients who had sustained a "cerebral concussion" are included in this group, care having been taken to evclude the more severe brain injuries—such as contusion-with focal neurologic signs on examination, skull fracture, as evidenced by x-ray or bleeding from the ears, mouth, or into the spinal fluid, and subdural or epidural hemorrhages. In other words, these were the typical cases so frequently seen, where a careful neurologic examination reveals nothing of significance, yet a head injury has been sustained and the complaints of headaches, dizziness, nervousness, etc., are prominent. Furthermore, all cases were excluded from this study if there was any question of litigation or compensation, or if there seemed to be any important source of mental conflict, which might introduce a possible psychic factor in the prolongation of symptoms. It was the distinct desire of the author to exclude as far as possible, all cases of so-called "litigation neurosis," so that a true picture of the course of events in those cases uncomplicated by possible psychogenic conflict, could be charted. Another study of a similar group of cases, where the element of litigation or compensation is a relevant factor, is now in progress. Practically all of the head injuries in this series resulted from the carelessness or misfortune of the patient—falls in homes, automobile accidents in which the patient had been at fault, and falls on slippery, icy pavements were the predominating causes.

#### Data

There were 58 women and 42 men in the series. The higher ratio of the female sex was probably due to the exclusion of those cases where the compensation or litigation element was a factor, since the latter occur more frequently in the course of masculine employment. In 12 of the cases there was no loss of consciousness whatsoever; in another 8 cases there was only momentary "stunning." The remaining 80 patients were unconscious for varying periods of time, all short, and none for longer than one hour. There was a wide variation in the age of these people, the youngest patient being 8 years old, the oldest 67 (see Table 1).

TABLE 1 .- 100 Cases of Cerebral Concussion

Ages	Cases
8-20	6
21-30	12
31–4041–50	21 26
51-60	20
Over 60	15

The symptoms complained of were remarkably similar: headaches, dizziness, and a heterogenous group of "nervous" changes, such as irritability, weakness, difficulty in concentration, insomnia, antisociability, hyperacusis, etc. These latter symptoms, if taken alone, bore a strong resemblance to the usual complaints of the neurotic and have been aptly named "nervous instability" by Symonds.1 Unlike the neurotic, however, in many of these cases, the patient did not stress these vaguer symptoms, but complained chiefly of the headaches or dizziness so that one often had to get the more complete picture of personality change from the wife or husband or a business associate before one could properly appreciate the severity of emotional change that had occurred. Trifling irritations, which previously had been of no concern, now produced marked distress and emotional upheaval. A previously affectionate husband would become a cross, surly, and unreasonable individual, lose his temper easily, or beat his child over some slight misdeed. Motion pictures or the radio no longer afforded the customary enjoyment; the "noise" was too distressing. Normal social desires seemed to be lost, friends tolerated for a brief visit, rather than welcomed, and their departure expectantly awaited. Women as well as men frequently complained of an inability to play

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943. Associate Attending Neuropsychiatrist, Bellevue Hospital, New York City.

same time she awakens resentment. Consequently the alcoholic develops an ambivalent attitude toward her. The mother wants to keep him away from other children in his youth, and in later years seems more content to have him associate with women of such questionable standards as to preclude marriage, rather than to form too amorous intimacies, however conventional, with those of his own social level.

As regards the father, he is generally so busy with his successful pursuits that he has little time to give his son. The father entrusts the son's early care to the mother or the servants and then in later years is surprised to find that his son is not like himself and that he has dissimilar interests. The father has been strengthened and tempered by facing the stern realities of life and by learning how to meet them through his own efforts. He has felt that his son should be shielded from similar laborious tasks and necessities. He does not want his son to have to go through what he has experienced. But the father forgets that in sheltering the son and in giving him opportunities for which he has not exerted himself in any way, he has left him a weakling and a novice in any competitive effort.

The patient who can be helped—that is, the patient who is sufficiently intelligent and willing to be helped-must be made aware of these factors. He should be taught to think about them without becoming emotionally upset. He should be made aware of the necessity of seeking some occupation or position in which he can feel content about his exertions and in which they are not attended with ever-disturbing conscious effort. I believe he should be emancipated from his parents as much as possible, made to stand on his own feet, and taught to succeed through his own effort. If married, he should face that obligation and not seek to escape it through divorce as he has escaped so many other obligations through alcohol.

And in closing I offer to him and to you the statement of Sir Horace Walpole, "Life is a tragedy to those who feel, a comedy to those who think."

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#### Discussion

Dr. Albert B. Siewers, Syracuse, New York—I wish to thank Dr. Allen for the privilege of discussing his paper and to express the pleasure which I derived from reading it. I found, as he was developing his thoughts on the emotional factors in

alcoholism, that they were very similar to my own. I am of the conviction that alcoholism is always an emotional problem and should be studied and attacked as such. This problem shows the same wide range in individuals with mental problems who are not alcoholic. It is a symptom of an illness, and the handling of the problem should be directed against the basic disease.

It has been my experience that these individuals have strong oral traits. As adults, they are fond of discussion, singing, and tobacco-smoking, and they have gastrointestinal complaints. While many of them are often men and women of some accomplishment, the majority display a rather typical lack of ambition or at least the absence of a concrete plan for living. Usually their jobs do not carry with them a great deal of responsibility. It is well known that many display latent homosexuality, which has been encouraged by an almost uniform type of mother whose emotional attitude was one of overindulgence, spoiling, and pampering. This leads to a feminine identification with a paucity of common masculine traits, such as aggression and direction of purpose. In addition, they prefer and are more at ease in a masculine type of environment. In their relationships with the opposite sex, these patients display poor adjustments, best seen in a weak heterosexual drive. They show an inability for maintaining normal relationships with socially accepted women.

Therapeutic approaches have been scientific in procedure. The religious approach or the Alcoholic Anonymous has some merit, and good results can be looked for in those who are essentially psychoneurotic. The schizophrenic patients are definitely a greater problem. Recently I had an opportunity to watch the "conditioned-reflex treatment" in a patient who for years had been refractory to institutional treatment and to religious and psychotherapeutic approach by competent Where the latter had completely psychiatrists. failed, the conditioned-reflex treatment succeeded in altering alcoholic habits and, apparently, has in some mysterious way given the patient some insight into his conflicts. Still more recently some good results of Alcoholics Anonymous have been seen. The great reservoir of chronic alcoholics is found in the courts.

Miller\* reviews the subject and stresses a threepoint program consisting of medical treatment, psychotherapy, and social reorientation and rehabilitation. His methods are quite ingenious.

In spite of all treatments, however, the most sensible approach is to obtain knowledge of the underlying psychopathology so that the psychiatrist may aid the patient in appreciating emotional insight. To quote Paul B. Brooks in his "Dr. Jones Says" column in the Health News: "But it's like a dog with a tin can tied to his tail; the faster he runs the more commotion there is to escape from. If the dog's got sense enough he'll stop when he comes to somebody he knows is his friend and let him untie the can."

<sup>\*</sup> Miller, M. M.: J.A.M.A. 120: 271 (Sept. 26) 1942.

Air encephalography was performed in 18 of the cases, usually when symptoms had been persistent for a considerable period of time. In 8 of these, definite pathologic findings were elicited, chiefly in the nature of ventricular distortion and dilatation or excessive collections of air in the subarachnoid spaces. In 3 cases, the injection of air was of marked therapeutic value. in approximately 45 per cent of the cases where air study was performed, positive findings were noted, and in these cases, this was the only objective evidence that could be found. Friedman, in a larger series of cases, has shown how the encephalogram may be the only means whereby organic changes can be shown in cases of so-called "traumatic neurosis."

Because of the recency of electroencephalography, only 6 of the patients had electroencephalograms performed, and in 2 of these positive findings of cerebral damage were noted. this is admittedly too small a number of cases to warrant any generalization, the noteworthy point, as with the air studies, is that in these 2 cases this was the only objective finding in the patients. Denis Williams, 10 in a series of 500 cases of head injury, found definitely abnormal electroencephalograms in approximately 50 per cent of chronic post-traumatic states, and "the abnormality persisted for many years after the injury." Marmor and Savitsky 11 have similarly reported recently positive electroencephalogram findings in 8 of 11 cases diagnosed as post concussion syndrome.

## Discussion

As a result of the above follow-up study, it would seem that more caution should be observed in rendering too optimistic a prognosis in cases of cerebral concussion. In round figures, only about 10 per cent were symptom-free in a month, and at the end of a year, about 30 per cent were still suffering from the usual triad of headache, dizzy spells, and nervous instability. In approximately 20 per cent of the cases, symptoms were still persistent after two years, and this figure was only slightly reduced after three years. About 15 per cent of the patients were still suffering from symptoms after three years, and in these cases the sequelae seemed permanent. Though at first glance these figures appear to make for a rather dismal prognosis, it must be borne in mind that a good many of the cases were seen only after the symptoms had already been persistent for a considerable period of time. The neurologist is not, as a rule, called in to see all cases of cerebral concussion, especially if the period of unconsciousness is minimal and the patient's progress seems to be satisfactory. Though this would tend to exclude a certain number of the less severe cases, yet a good many were seen by the author in the earliest stages, especially on the wards at Bellevue Hospital. The general impression of the author is that the persistent sequelae may be somewhat greater than the average for this reason, but only slightly so. Glaser and Shafer,12 in a follow-up study of 255 cases of brain trauma, observed that 46 per cent of the patients over 50 years of age continued to have subjective complaints from one and a half to five years, and even in patients under 50, such symptoms persisted in 23 per cent. In 31 per cent of their cases, headaches and dizziness persisted during the entire fivevear period. Their figures seem even worse prognostically than the author's, probably because of the fact that cases of skull fracture and focal brain lesions were included in their series. Yet only 32 per cent of all their cases showed any positive neurologic signs on examination, and. as these authors observed, symptoms were less likely to develop in patients suffering from depressed fractures than in those without fracture. If only this fact could be impressed on our friends in the legal profession, a great step forward would be made.

A similar study by Wechsler<sup>13</sup> on 100 consecutive cases of head injury, seen in practice, included about 25 per cent of patients with focal neurologic signs, yet persistent subjective complaints were present in 74 per cent of all cases. Though many of these were thought by Wechsler to be psychogenically motivated because of the the associated presence of litigation, in 28 per cent he felt convinced that a traumatic encephalopathy was present, even in the absence of positive neurologic signs. Russell,14 following up his series of head injuries, found 86 of 141 cases, or approximately 60 per cent, with persistent symptoms after six months, and this figure is all the more striking when one considers that in only 14 of these cases was there any question of pending compensation of litigation. It would seem, therefore, that the more one studies these cases, the more one is impressed with the substantial number of patients whose post-concussion symptoms are considerably prolonged. all tend to remember our favorable experiences more vividly and tend to overlook the less frequent, though substantial, number with persistent residuae.

Age, at time of injury, as repeatedly stressed by almost all observers, is of cardinal prognostic value. The younger the patient, the more hopeful the outlook, and the above figures only emphasize a fact already well appreciated. Patients over 40 years of age are twice as likely to have persistent sequelae as those under 30.

Another point worth stressing here is that

cards because of an impairment in concentration and difficulty in quick, accurate thinking. Whereas previously there had been a desire for reading, this was now lost, becoming secondary to the requisite mental effort. In short, in many cases, there had occurred a profound personality alteration which superficially resembled the functional complaints of the neurotic, yet neurotic symptoms had not been present prior to the head injury. No history of previous "nervous breakdown" was obtained. All patients had previously adjusted well to the customary economic, social, or marital stresses encountered in average existence.

"How long will these symptoms last?" The difficulty in giving the patient or the referring physician an accurate answer to this question merited further study.

In this series, headache was complained of in 62 per cent of the cases. It was often described as "bursting," or "hammering," and varied in location, though again in contrast to the neurotic, it was only rarely referred to as a "pressure on the top of my head." Sudden changes in the position of the head would often bring on a paroxysmal attack of severe headache and dizziness, occasionally with nausea. These headaches persisted in varying duration, from less than twentyfour hours, to well over three years and in 20 per cent of the cases were still present after three years (see Table 2). The minority (10 per

TABLE 2.—DURATION OF HEADACHES

	===
20.3	10% 65% 78% 20%
Less than 30 days	65.67
Less than 1 year	20.70
Less than 2 years	78%
Less than 3 years	80%
Less than 3 years	200%
Still present after 3 years	2070

cent) of cases in which the headache lasted less than thirty days, occurred almost entirely in those younger individuals under 30 years of age, and there was an almost proportionate increase in the duration of the headache with each succeeding decade. With but few exceptions, the headaches persisting over two years were in patients over 40 years of age.

Dizziness was the second most prominent symptom complained of, and was present in 58 per cent of the cases. At times it was prolonged, and in 16 per cent of the cases it was still present after three years (see Table 3). As with headaches, the prognosis was very poor if the dizziness persisted longer than from one to two years,

TABLE 3.—DURATION OF DIZZINESS

Less than 30 days. Less than 1 year. Less than 2 years Less than 3 years.	12% 74% 82% 84% 16%
Less than 3 years	10 70

very few patients recovering after two years. The dizzy spells in these patients must not be confused with true vertigo, which, fortunately, was rare in this series. Instead it was a giddiness usually produced by sudden change in position of the head, with an associated feeling of faintness. Similar symptoms are often seen after a severe illness, when the patient has been bedridden for some time, and first attempts to walk again. According to Rowbotham,2 these "momentary blackouts" are due to an instability of the cerebral circulation consequent upon injury to its vasomotor apparatus. Because of this momentary ischemia of the brain, a feeling of giddiness is produced in a manner similar to the mechanism of syncope. This is an attractive theory, but it must be borne in mind that in many cases of cerebral concussion, actual damage has also occurred to the vestibular mechanisms. Brunner,3 Linthicum and Rand,4 and most recently, Zacks,5 have emphasized the frequency of labyrinthine damage in these cases, and unless vestibular tests are routinely performed, such evidence of impairment is not elicited by the usual neurologic examination. According to these observers, the head injury is often productive of degenerative changes in the cochlear nuclei, with localized areas of altered circulation due to the altered irritability of vasodilators and vasoconstrictors. The traumatic paralysis of the vasoconstrictors is probably the result of damage to the brain stem, a thesis strongly advocated by Denny-Brown and Russell,6 in their experimental work to be described below. Further support to this theory of a primary vasomotor origin of symptoms has been afforded by the pathologic studies of Helfand,7 in a series of 22 cases of brain trauma, and recently by Malones who, by using prostigmine, a vasodilator, was able to afford substantial relief to many of these patients with the symptoms of "postconcussion syndrome."

"Nervous instability," so frequently found in this series, has already been described above. As with the other symptoms mentioned, its duration was quite often prolonged (see Table 4).

TABLE 4.—Duration of "Nervous" Symptoms

INDED 4: 2	180
Less than 30 days. Less than 1 year. Less than 2 years. Less than 3 years. Still present after 3 years.	85%

It must again be emphasized that in these cases, no litigation or compensation motive was present, yet many of the patients had unfortunately been labeled "neurotic," chiefly because of the prolonged duration of symptoms. No case of post-traumatic psychosis was encountered. fixed when struck, for when this was done, a crushing injury with several cerebral contusion was produced, quite different from that obtained in concussion. When the head was allowed to go forward with the blow, a mechanism more nearly similar to that of the usual head injury, typical cerebral concussion was produced. The essential factor seemed to be a sudden change in speed of the brain within the skull, and it was calculated that the requisite acceleration necessary was from 0 to 23 feet per second. further noted, as a result of these head injuries, a disorder of bulbar function, with stimulation of the vasomotor centers in the medulla, and a rapid vasoconstriction, comparable to a sudden asphyxia. Though a rise in intracranial pressure was occasionally present, it was not an essential feature of the concussion. It was their feeling that loss of consciousness is associated with microscopic changes in the nerve cells of the brain, resulting from physical acceleration of these cells. These findings would help us understand the observations of Cloward, since the speed at which the projectiles were traveling was so great that the head was struck, perforated, and penetrated before the brain as a whole had time to be set into motion, and it is interesting to note that, in his cases, there was an absence of linear fractures of the skull around the point of entrance of the projectile, which, as Cloward comments, is "further evidence of the high speed the missiles were traveling." Lastly, it should be emphasized that such an explanation is true in other than high-speed bullet or shrapnel wounds. Earl Walker<sup>21</sup> has reported the case of a man who, while lying under an auto, had the car jack slip, crushing his head between the car and the ground and producing an extensive fracture of the skull, yet with no loss of consciousness whatsoever. Here the head, because of the support of the ground, was not subjected to the acceleration resulting in most head injuries, since it was in a fixed position when struck.

It would seem high time, therefore, that neurologists placed less weight on absence of unconsciousness in their estimation of the severity of original head trauma and brain damage. Like the Wassermann reaction of the blood. positive findings are usually conclusive but negative results not exclusive.

In conclusion, a few words as to similar residual symptoms in allied cerebral lesions may not be out of place. The author has recently seen 5 cases of carbon monoxide poisoning, all asphyxiated at the same time by escaping fumes from a leaking gasoline engine. All were rendered unconscious at the time of the accident, and despite the lapse of a year, persistent symptoms of headaches, nausca, dizziness, and difficulty in con-

centration were present in all these 5 men. Prolonged residuae, after such acute poisoning, have been accepted by authorities on this subject, such as Drinker,22 Henderson and Gillespie,23 and others, and it is recognized that, in these cases, the brain cells have been damaged because of the resulting anoxemia, secondary to carbon monoxide's affinity for the hemoglobin of the blood. Petechial hemorrhages in the brain are often noted in such cases, and similar cerebral lesions have been described as a result of electrocution and recently in cases of blast concussion in England (Fulton<sup>24</sup>), as well as in immersion blast injuries by Hamlin.25 The striking resemblance of symptoms in these definitely "organic" lesions to those of the postconcussion syndrome described above, cannot be ignored in the evaluation of this problem.

## Summary

1. A follow-up study of 100 cases of cerebral concussion has been made. No cases of more severe brain injury, such as skull fracture or focal cerebral contusion, were included. Cases where litigation or compensation factors were present or where a strong psychogenic element seemed to be a part of the picture were likewise eliminated from the study.

2. The residual symptoms have been analyzed as to duration. Headaches, dizziness, and various symptoms of nervous instability, persisted in approximately 1/3 of the cases for more than one year. In about 15 per cent of all cases, symptoms were still present after three years and appeared permanent.

3. In the duration of symptoms, the outstanding importance of the age of the patient is stressed. The prognosis seems twice as favorable in patients under 30 as in those over 40 years of age.

4. Loss of consciousness was not present in approximately 20 per cent of the cases, yet the persistence and severity of symptoms in this group was no less than in those where unconsciousness had been present.

5. Air studies and the electroencephalograms were of definite help in a considerable number of cases, in pointing out definite cerebral lesions despite a normal neurologic examination. The importance of these procedures in the evaluation of these cases is stressed. One cannot escape the conclusion that as our diagnostic technic and instruments of precision become more refined, more and more of these cases, hitherto labeled neurotic, can be proved to have important brain alterations. The medicolegal value of these data cannot be overlooked.

6. More recent work on the subject of cerebral concussion is reviewed and the similarity of care must be taken lest the above figures on persistent symptoms be interpreted as total inability to return to work. Many of the patients, though still complaining of residual symptoms, were back on their jobs, doing their housework, etc. It is quite conceivable that, had the question of compensation complicated the picture in these cases, the results would have been even more unfavorable. Though efficiency may have been impaired, economic necessity kept at their tasks many patients who, had this incentive been absent because of regular compensation benefits, might have succumbed to a life of complaining and neurotic invalidism.

Air encephalography and electroencephalography proved of great value in establishing the organicity of the complaints in a substantial number of cases in which this procedure was performed. The value of these sources of additional information cannot be denied, and it is the author's distinct impression that with the increasing knowledge of the electroencephalograms, and its wider application in head injuries, this will become a standard procedure in these cases. From the medicolegal standpoint, it is often decisive, as it may be the only "objective" data supporting the genuineness of the patient's complaints. The high percentage of positive findings in cases of post-traumatic concussion symptoms has already been mentioned (Williams, 10 Marmor and Savitsky<sup>11</sup>).

Loss of consciousness is important when present and of long duration, but its absence does not exclude severe brain damage. In 12 cases in this series there was no loss of consciousness whatsoever, and in another 8 only momentary "stunning," a total of 20 per cent of all cases. No lesser severity of postconcussion symptoms in this group than in the average of the series was noted. This fact has been corroborated repeatedly by various observers. Russell,14 in his study of 200 cases of head injury with severe post-traumatic sequelae, commented that, in many of these cases, "unconsciousness was present for a few moments only, yet some of the patients with the longest period of unconsciousness had practically no residual symptoms." Strauss and Savitsky<sup>15</sup> were also impressed with the frequent lack of association between duration of unconsciousness and severity, or persistence, of symptoms. They aptly point out that we accept the rupture of relatively large intracranial vessels, such as occur in subdural hematoma, or epidural hemorrhage, with only the history of a dazed state and, unquestionably, such cases have been reported. Traumatic epilepsy following head injury without original loss of consciousness has been reported by Hughlings Jackson<sup>16</sup> and Josephowitsch.17 Furthermore, it has long

been recognized that, following head traums, a patient may go through a fugue state during which time, though consciousness is maintained. there is a period of amnesia for the events occurring during this time interval. The well-publicized experience of Eugene Tunney,18 describing a personal experience of cerebral concussion with a long episode of amnesia, though consciousness was intact, is worth rereading, and similar experiences on the part of prize fighters are common knowledge. Foster Kennedy<sup>19</sup> has described the case of an officer in the last war, who suddenly went blind, yet denied that he had been hit; all he knew was "that daylight had been replaced by complete blackness." At the casualty clearing station a tiny, crescent-shaped abrasion was found above the hairline on the temple, and x-ray examination revealed a small sliver of steel in the optic chiasm.

The intensely interesting experiences at Pearl Harbor have recently been most dramatically recorded by Cloward.20 As the result of the bombing of Hawaii on December 7, 1941, many brain injuries were encountered secondary to shrapnel penetration through the skull. Large jagged pieces of metal, traveling at high speed, had ripped great irregular holes in the tissues of the head and sunk into the brain. In many of the cases the fractured bone fragments were carried into the brain, lacerating cortical vessels and brain substance over a wide area. Yet "few of the patients with penetrating wounds of the brain were brought to the receiving station in The majority of them an unconscious state. had not even been unconscious, but were able to recall everything that had transpired from the time they were hit until they arrived at the hospital. This was a most surprising fact to the doctors who saw these cases. Patients with large gaping wounds in the frontal areas, with considerable quantities of cerebral tissue oozing from the wounds, were found to be conscious, cooperative, rational, and able to give their identification."

Many other recorded experiences of similar type could be quoted. Unfortunately, though the medical literature abounds with reports of cases of brain injury without loss of consciousness, this experience is too frequently ignored in assessing the severity of the brain damage. Without going into a long discussion as to the pathogenesis or histologic alterations in these cases, it would seem that the crucial point in the production of the concussion syndrome is the acceleration, positive or negative, of the brain at the time of the head injury. This would seem to be definitely proved by the outstanding recent work of Denny-Brown and Russell.<sup>6</sup> In their experimental animals, they did not allow the head to remain

fixed when struck, for when this was done, a crushing injury with several cerebral contusion was produced, quite different from that obtained in concussion. When the head was allowed to go forward with the blow, a mechanism more nearly similar to that of the usual head injury, typical cerebral concussion was produced. The essential factor seemed to be a sudden change in speed of the brain within the skull, and it was calculated that the requisite acceleration necessary was from 0 to 23 feet per second. further noted, as a result of these head injuries, a disorder of bulbar function, with stimulation of the vasomotor centers in the medulla, and a rapid vasoconstriction, comparable to a sudden asphyxia. Though a rise in intracranial pressure was occasionally present, it was not an essential feature of the concussion. It was their feeling that loss of consciousness is associated with microscopic changes in the nerve cells of the brain, resulting from physical acceleration of these cells. These findings would help us understand the observations of Cloward, since the speed at which the projectiles were traveling was so great that the head was struck, perforated, and penetrated before the brain as a whole had time to be set into motion, and it is interesting to note that, in his cases, there was an absence of linear fractures of the skull around the point of entrance of the projectile, which, as Cloward comments, is "further evidence of the high speed the missiles were traveling." Lastly, it should be emphasized that such an explanation is true in other than high-speed bullet or shrapnel wounds. Earl Walker<sup>21</sup> has reported the case of a man who, while lying under an auto, had the car jack slip, crushing his head between the car and the ground and producing an extensive fracture of the skull, yet with no loss of consciousness whatsoever. Here the head, because of the support of the ground, was not subjected to the acceleration resulting in most head injuries, since it was in a fixed position when struck.

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2. The residual symptoms have been analyzed as to duration. Headaches, dizziness, and various symptoms of nervous instability, persisted in approximately 1/3 of the cases for more than one year. In about 15 per cent of all cases, symptoms were still present after three years and appeared permanent.

3. In the duration of symptoms, the outstanding importance of the age of the patient is stressed. The prognosis seems twice as favorable in patients under 30 as in those over 40 years of age.

- 4. Loss of consciousness was not present in approximately 20 per cent of the cases, yet the persistence and severity of symptoms in this group was no less than in those where unconsciousness had been present.
- 5. Air studies and the electroencephalograms were of definite help in a considerable number of cases, in pointing out definite cerebral lesions despite a normal neurologic examination. The importance of these procedures in the evaluation of these cases is stressed. One cannot escape the conclusion that as our diagnostic technic and instruments of precision become more refined, more and more of these cases, hitherto labeled neurotic, can be proved to have important brain alterations. The medicolegal value of these data cannot be overlooked.
- 6. More recent work on the subject of cerebral concussion is reviewed and the similarity of

these residuae to cases of other forms of brain injury, such as carbon monoxide poisoning and blast concussion, is pointed out.

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#### Discussion

Dr. G. Kirby Collier, Rochester, New York-Dr. Denker has most carefully analyzed a series of 100 concussion cases, excluding the more severe brain trauma and those showing definite organic neurologic residuals. He tells us that he has further eliminated from this study those cases in which "a strong psychogenic element seemed to be a part of the picture" and that no litigation or compensation motive was present. The symptom picture presented by him is similar to that seen by all of usheadache, dizziness, lack of concentration, emotional instability, insomnia, etc. Most significant to me is his statement that in approximately 50 per cent of those who had an air encephalography done, definite abnormal findings, such as subarachnoid air, distortion or dilatation of ventricles was noted. Again, in his reference to the age incidence, Dr. Denker makes a statement which I feel is quite significant, in that the patient over 40 years of age is twice as liable to have persistent symptoms as those under 30. We cannot escape the encephalographic findings, even though the series is small, and they were done after a considerable lapse of time. Does this not imply that any disturbance of the brain in its bony box must be followed by some damage—a generalized swelling or edema, followed later by a dehydration, and later still by a cortical atrophy of some degree? In that group under 30 years of age, reparative changes would be more active than in the older group. Whatever the pathologic changes are they are of varying degree Without reviewing the other findings in the very informative paper, should we not consider always the psychogenic background of our patient as being a most important factor in prolonging symptoms in these concussion cases?

In our history taking, we often find life situations which the patient is unwilling to discuss. Many times these are situational factors in the immediate past and at times have some relationship to the accident.

#### CONTRACEPTIVE PREPARATIONS ACCEPTED

The first list of contraceptive preparations and devices accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in its publication, New and Nonofficial Remedies, is published in the December 18 issue of the Journal of the Association.

In its announcement the Council says that "At its annual meeting in 1942 the Council on Pharmacy and Chemistry declared contraceptives eligible for consideration on the same basis as therapeutic agents.

Prior to this time the Council's consideration of the contraceptive problem had consisted in sponsoring with the Council on Physical Therapy (of the Association) occasional status reports. To aid the Association) occasional status reports. Council in its considerations, an Advisory Committee consisting of outstanding authorities in this

field was formed and it prepared a set of criteria 50 that contraceptive agents might be evaluated consistently and fairly . . . . The Council on Pharmacy and Chemistry has received the status of appliances submitted by two firms but voted to refer all other submissions of appliances to the Council on Physical Therapy. Thus there follows on these pages a description of certain physical devices which received early consideration by the Council on Pharmacy and Chemistry.

"The Council has also authorized publication (in this issue of the Journal) of a status report by Dr. Robert L. Dickinson, of New York, a statement of actions and uses for New and Nonofficial Remedies, and criteria on which such contraceptive agents have been examined. As pointed out, these criteria

may be changed as experience grows.

## SIXTEEN YEARS' EXPERIENCE WITH PLACENTA PRAEVIA EMPHASIZ-ING CONSERVATIVE THERAPY

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PLACENTA praevia is generally considered the most common as well as the most serious cause of antepartum hemorrhage. Bleeding of a greater or less amount is inevitable because of the anatomic relationship of the placenta to the lower uterine segment, as sooner or later there is a stretching of this segment of the uterus. The first bleeding may occur early in the pregnancy, and be diagnosed as a threatened abortion, and about 10 per cent of placenta praevias are said to give such symptoms. When the bleeding occurs later in the pregnancy it may be slight or exsanguinating. Fortunately, the former is the more common. Since painless bleeding or hemorrhage is the cardinal symptom of this condition, any patient who has painless bleeding should be examined promptly to establish a diagnosis.

The diagnosis is entirely dependent upon a physical examination. The hemorrhage is only a symptom of some abnormal condition. One must differentiate premature separation of a normally implanted placenta, polyps, cervical or vaginal erosions, carcinoma of the cervix or vagina, vasa praevia, and at times vaginal injuries. Abnormal presentations of the fetus, failure of the presenting part to engage, or the placental bruit being best heard immediately above the symphysis pubis may indicate a praevia. If on vaginal examination there is unusual cyanosis of the mucosa, marked pulsations in and about the fornices, and the cervix itself is unusually soft and possibly somewhat dilated, the suspicion is further increased. when the examining finger is passed up into the cervix, a soft, spongy mass is felt between the finger and the presenting part or the edge of the placenta, there can be no mistake in the diagnosis.

The x-ray has been used with success by some to diagnose placenta praevia, but in our clinic the results have not been too reliable. Cystograms, or pictures taken so as to differentiate the placenta and uterine wall, are the usual tech-

The prognosis, for mother and baby, is affected by several factors: the amount of hemorrhage before, during, or after delivery, the duration of

the pregnancy, the presence or absence of infection, the variety of placenta praevia, the amount of placental separation, the amount of dilatation as well as the consistency of the cervix, injuries to the birth canal, the method of treatment, some other complications, and perhaps most of all by the ability of the obstetrician and the available facilities, such as plasma, blood, and assistants. The maternal mortality is said to vary from 1 to 19 per cent, while the fetal mortality varies from 10 to 80 per cent.

In the treatment of placenta praevia the first prerequisite is that the hemorrhage be controlled as soon as possible. The second is that the procedure selected shall contribute to the termination of the pregnancy and labor with as great safety as possible to the mother and to the child, if it is living and viable. Third, scrupulous attention to technic to prevent infection must be observed.

Every case of placenta praevia should be hospitalized, if it is at all possible. Vaginal examinations should never be done until preparations have been completed to control bleeding, and blood and/or plasma is immediately available; otherwise a fatal hemorrhage may occur-The prospective donors must be kept at hand until danger of hemorrhage is past.

The methods of treatment are of two types: first, those which aim at delivery through the birth canal, and, second, those which aim at delivery by some type of cesarean section. In recent years there has been a decided trend toward the use of cesarean section in the treatment of this condition. In one series, cesarean section has been used for all types of placenta

Of the obstetric, or so-called conservative measures, several are used. The simplest, perhaps, is the artificial rupture of the membranes, and unless the patient is in labor, the application of a tight abdominal binder to hold the presenting part against the placental edge to control the bleeding. This method is of particular value in the marginal variety of placenta praevia, when the head is fairly well into the pelvis. The outcome is usually satisfactory for mother and child.

A second procedure is the Braxton-Hicks bipolar version, but this requires considerable obstetric skill and can only be used when the cervix will admit two fingers. It has been recommended for use in the home when other means

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From the Department of Obstetrics and Gynecology, University of Rochester School of Medicine and Dentistry. Rochester, New York.

are not available to control hemorrhage, but its use is questioned, because a person with limited obstetric ability is supposed to carry out a maneuver requiring skill above the average.

A third procedure is the use of the Willett's forceps. Although it has not been used in our clinic, it would seem to have a definite place in the armamentarium of an obstetrician. It is a modified volsella forceps which can be clamped to the fetal scalp after the membranes have been ruptured. It can be best used when the fetus is dead, but is also usable on viable fetuses. Care should be taken not to attach it over a fontanelle or suture line. A weight of one or two pounds is fastened to the other end of the forceps. This forceps would seem to have particular merit in the treatment of the marginal or partial varieties of placenta praevia when they must be handled in the home, since no great skill of manipulation is exercised in its use.

The fourth procedure is the use of the Voorhees' bag, which is, of course, primarily a hospital procedure. As a rule, the patient should be anesthetized. The patient is examined vaginally to determine the presence of a placenta praevia. The membranes are ruptured, as the bag should always be placed intra-ovular, for only if it is so placed will the bag compress the placental edge against the cervix and control bleeding as well as stimulate uterine contractions to aid in dilating the cervix. Extra-ovular insertion of the bag is not mechanically sound, as it in no way serves to control bleeding, and it may cause further separation of the placenta with the resultant formation of a concealed hemorrhage. The bag used should be large enough to insure complete dilatation of the cervix when it comes out. When the bag is rolled up, it can easily be inserted through a 2 to 3 cmcervix, with the forceps used to introduce it. By knowing its capacity beforehand, it can be filled without putting too much tension on it, and possibly having it burst. There is no need to place packing around the cervix or in the vagina. After the stem is securely tied, and perhaps clamped, the patient is placed in her bed and a weight of 1 or 2 pounds is attached to the stem, by means of a tape, and hung over the foot of the bed. The traction insures continuous pressure to control hemorrhage as well as to stimulate pains.

The patient, as a rule, starts in labor in a short time and her progress must be closely followed so that delivery can be effected promptly after the bag is expelled through the cervix. It is even better to have the patient prepared for delivery just before the passage of the bag through the cervix, for if this is done babies can at times be saved. The placenta may sepa-

rate more at this time and cause asphyxiation of the baby, or increase the amount of asphyxiation of a baby already in difficulty. The possibility of hemorrhage as a result of removal of pressure in releasing of the bag may be lessened if the presenting part does not promptly drop into the cervical canal. The bag invariably displaces the presenting part, but in the majority of cases it descends again and controls the hemorrhage. The cord may prolapse at this time too. For the above reasons, the entire operating room personnel must be immediately available when the bag is expelled from the cervix. Delivery is conducted in the most conservative manner. If the head comes down and the bleeding is minimal, spontaneous delivery is awaited, or forceps applied if necessary. If it is a breech presentation, an extraction is done. If there is a persistent abnormal presentation, prolapsed cord, or profuse bleeding, labor is terminated immediately by internal version and extraction. The third stage of labor is conducted as circumstances indicate.

The advantages of the use of the hydrostatic or Voorhees' bag are: (1) The bag can be used in all cases, (2) the bag controls hemorrhage and stimulates labor pains, thereby aiding in the dilatation of the cervix so that delivery can be completed without undue delay, (3) less risk is incurred by the mother than by surgical methods, (4) less technical skill is required so that a wider use can be made of this method, (5) the presence of infection in no way contraindicates its use, and (6) the rate of maternal mortality will be lower.

The disadvantages of the Voorhees' bag are:
(1) Some babies are lost by asphyxia, prolapse of the cord, or injuries in obstetric procedures aiming at delivery; some of these would die from prematurity, as a large percentage of them are premature. (2) The rubber in the bags deteriorates rapidly, necessitating frequent inspection and replacement. (3) Its use is definitely limited to hospital practice. (4) There is added risk of infection.

As stated previously, cesarean section is being done more and more for placenta praevia. The type of operation used depends upon the operator and the circumstances of the case. Cesarean section has a very definite place in the treatment of this condition, but its use is limited to those who are surgically trained, and the surgical ability further determines the type of section done. Any surgeon can do a classical cesarean section, but it requires special training to do one of the more specialized types of section, and these must be used if cesarean is to be used as a treatment for placenta praevia. Cesarean section may be done on a patient in good condition who

TABLE 1 .- Type of Placenta Praevia and Treatment

Туре	Number	Treatment			Mode of Delivery	
Central	6	Voorhees bag Fully dilated on admis-	4	(and)	[Version and extraction	•
		sion	1	(by)	Version and extraction Cesarean section	1
Partial	20	Voorhees Bag	17	(and)	Spontaneous Version and extraction Breech extraction Cesarean section Low forceps	4 9 2 1
		Nearly fully dilated	3	(by)	Version and extraction Breech extraction	1 2
Marginal	59	s Bag	45	(and)	Spontaneous Version and extraction Breech extraction Low forceps	23 13 7 2
		Artificial rupture of membranes or nearly fully dilated	13	(and) (by)	Spontaneous Version and extraction Breech extraction Low forceps	8 3 1 1
Unclassified	1	Ĺ			[Cesarean section [Cesarean section	1

has a central placenta praevia, and occasionally on a patient with a partial placenta praevia and a long, closed cervix, providing she is not infected and the sterile examination has been the only vaginal manipulation. The child should be viable and apparently normal.

Seeley's states five contraindications to cesarean section: (1) shock from blood loss, (2) a cervix dilated 4 or more cm. in a patient in active labor, (3) vaginal tamponade previously done, (4) previous attempts at delivery from below, and (5) doubtful sepsis from repeated vaginal examinations.

Seven years ago, I reported a series of 36 cases of placenta praevia at the State Society Meeting. Since then our total number of cases has increased to 86. This demonstrates an incidence of 1 in 167, or 86 in 14,386 cases. In 66 cases, or 76.6 per cent, the Voorhees' bag was inserted to control bleeding and induce labor. In only 4 cases a cesarean section was done. Four cases had had placenta praevia in a previous pregnancy, and one a premature separation. Eleven cases were in primiparas. Thirty-six, or 41.8 per cent, had spontaneous deliveries and 50, or 58.2 per cent, had operative deliveries. Central placenta praevia occurred six times, partial twenty times, marginal fifty-nine times, and one case was unclassified. Table 1 shows the type of placenta praevia and the treatment.

Manual removal of a part or all of the placenta was necessary in 18 cases, 7 of which were full term. In only one case was it necessary to tamponade the uterus to control hemorrhage, and this was a case of five months' duration. One or 2 cc. of pituitrin were given intramuscularly, routinely, after the third stage of labor, and ergot was given when necessary. Prolapse of the cord was encountered three times and 2 of

the babies were delivered alive by version and extraction. In one case at term the baby died. Two cases had cervical lacerations that required suturing. Sixty-nine were vertex presentations, 15 breech, and 2 transverse.

Age Incidence.—Twenty-four patients were between 19 and 25 years of age, 21 between 26 and 30, 23 between 31 and 35, 15 between 36 and 40, and 3 over 41.

Period of Gestation.—Twenty-four cases were from five to seven months, 29 from seven to eight months, and 33 from eight to nine months.

Duration of Bleeding.—Of the 86 patients, 46 had had bleeding for less than twenty-four hours before admission, 13 from two to seven days, 14 from one to four weeks, and 13 for a longer time than four weeks. Fourteen patients, or 16 per cent, were treated for threatened abortion in early pregnancy. A patient who has bleeding early in pregnancy may be the placenta praevia case later.

The labors, as a rule, were short. Fifty-seven patients had less than ten-hour labors, and 26 of these lasted less than five hours. Seventeen patients had labors longer than fifteen hours. Three labors were quite prolonged. One fifty-two-hour labor and another of sixty-eight hours occurred in primiparas, both of whom delivered living term babies, and the third, a sixty-hour labor, was in a para I who was delivered of a 1,660-Gm. child, who later died.

The maternal morbidity rate was high. Thirty-four, or 40 per cent, of the patients had a febrile puerperium. Six were only one-day fevers. One was possibly due to a respiratory infection and another to pyelitis. One had bronchopneumonia. Twenty-four had intrauterine infections. Three patients developed a thrombophlebitis, two after discharge from the

#### TABLE 2 .-- MATERNAL MORBIDITY

## Febrile. Cause not determined Febrile. Postoperative reaction after cesarean section Pyelitis

1 Bronchopneumonia 6 One-day fevers 24 Intrauterine infections

3 Term—after bag insertion—spontaneous
8 Term—after bag insertion—version and extraction
2 Premature—after bag insertion—spontaneous
3 Premature—after bag insertion—breech extraction
3 Premature—after bag insertion—version and extraction tion

1 Premature--without hag insertion-version and ex-

Immature—after bag insertion—spontaneous
 Immature—after bag insertion—version and extrac-

tion

1 Immature—after bag insertion—low forceps
1 Immature—without bag insertion—breech extraction. Hemolytic streptococcus
Thirty-four patients, or 40 per cent, had febrile puerperia.
Three had a thrombophlebits.

Two died from infection. Mortality-2,32 per cent.

hospital. One of these died, as noted later. See Table 2.

There were two maternal deaths in the series, or a mortality of 2.32 per cent. The following is a summary of the histories of these cases.

Case 1.-The first woman was a 30-year-old gravida I at term. There had been bleeding for three days and the patient was obviously infected on admission. A marginal praevia was diagnosed and a Voorhees' bag inserted. She was delivered of a living full-term child, by version and extraction after a sixty-eight-hour labor. Manual removal of the placenta was done. It was estimated that the blood loss at delivery was not more than 300 cc. She died of a hemolytic streptococcus septicemia. Six transfusions were given.

Case 2.—The second was a 20-year-old primipara who was six months pregnant. She was admitted the day bleeding occurred. The fetal heartbeat was never heard. A marginal placenta praevia was found and a Voorhees' bag inserted. Delivery was spontaneous, with a blood loss of 500 cc. Her postpartum course was uneventful and afebrile. A transfusion of 500 cc. of citrated blood was given. was discharged from the hospital on the eleventh Four days later, she was readmitted because of fever and chest pain. Pelvic examination was negative. The diagnosis rested between pneumonia and a pulmonary infarct. She did well for eleven days and then had a pulmonary embolus and died in thirty minutes. No autopsy was done.

Fetal Mortality .- Sixty babies, or 70 per cent, were alive when born. One full-term child died of congenital heart disease, another after prolapse of the cord and a difficult delivery. Four premature and 14 immature babies died of prematurity. One premature baby died from atelectasis.

Babies weighing less than 1,500 Gm. are called immature, those between 1,500 and 2,500 Gm. premature, and those 2,500 Gm. and over full term.

#### TABLE 3 .- FETAL MORTALITY

60 babies, or 70 per cent, were alive when born.
23 full term. One died of congenital heart disease.

One died after prolapsed cord and difficult de-livery.

21 premature. Four died of prematurity. One died of atelectasis.

16 immature. Fourteen died of prematurity.

27 babies, or 30 per cent, were stillborn.
8 full term. Five were dead on admission. There were three intrapartum deaths. One of these

heard only on admission.

emature. Three were dead on admission. There 9 premature. were six intrapartum deaths.

10 immature. Six were dead on admission.

48 babies were dead on admission or died, giving an un-corrected mortality of 55.8 per cent.

There was one pair of premature twins.

Twenty-seven babies were stillborn; of these 8 were full term, 9 premature, and 10 immature. Nine of the stillborn deaths occurred intrapartum; three of the babies were full term, and 6 premature. Thirty-one babies were full term, 29 premature, and 26 immature. The uncorrected fetal mortality rate was 48, or 55.8 per cent. Perhaps 3 full-term and 6 premature babies could have been saved by cesarean section. See Table 3.

Transfusions.-From one to six transfusions were given in 33 cases; 500 to 600 cc. of blood were given at a time.

Every case of placenta praevia should be grouped and matched as soon as possible after admission to the hospital. This should be done before any operative or even diagnostic procedure is done. The prospective donors should be kept at hand so that they are immediately available. Transfusions should be given to combat shock and to replace blood loss. Not infrequently, more than one transfusion may be necessary. Since plasma is available even to the country practitioner treating a patient in the home, it can save the lives of patients when a transfusion could not be given immediately. The lifesaving value of transfusions of whole blood and plasma cannot be too strongly emphasized.

The first danger to the mother is hemorrhage. Early appreciation of the importance of the first bleeding in the latter half of pregnancy cannot be stressed too strongly. In the series reported seven years ago 50 per cent had had bleeding for longer than one week before consulting a doctor, and 331/2 per cent for longer than four weeks, but in the total series these figures were 31 per cent and 25 per cent. Also in the first series of cases, 331/3 per cent entered the hospital with a history of bleeding less than twenty-four hours, and in the whole series the figure was 53 per cent. I should like to believe that this shows the effect of our teaching of prenatal care. If these cases are seen early, not

only is less blood lost, but the chance of infection is less.

In this series 40 per cent of the patients had a febrile puerperium, and 30 per cent had puerperal infections. This also shows a lowering from the figures in the first series from 50 per cent and 33½ per cent, respectively. Both patients in this series died as a result of infection.

The above figures indicate that infection is to be feared as much as hemorrhage and that vaginal examinations, vaginal tamponade, if done, and operative procedures should be carried out with the strictest aseptic technic. With use of the sulfa drugs many infections can be cured and many lives saved.

Fetal mortality is not dependent so much upon the method of treatment, for many of the babies are premature or immature and will die

of prematurity.

In this series of cases 36 per cent of the babies were classified as full term and 30 per cent as immature. Asphyxiation from separation of the placenta is a second factor in fetal mortality. At least 14 per cent of the babies were dead on admission. Nine babies, whom cesarean section might have saved, were lost by intrapartum deaths, but of course not all cesarean section babies live.

The following is offered as a procedure in treating a case diagnosed as placenta praevia.

- 1. Take the patient to the hospital, in an ambulance if possible. Do not insert a vaginal pack, for it may compromise the treatment later.
- 2. Group and match the blood of the patient with compatible donors and keep them at hand. Have plasma ready.
- 3. Have the operating room set up for a vaginal procedure to control hemorrhage and/or to do a cesarean section.
- 4. Do a careful vaginal examination after a thorough clean-up technic. Determine the variety of placenta praevia present.
- 5. If the patient is in labor and the presenting part is fairly well into the pelvis, a simple rupture of the membranes and the application of a tight abdominal binder will often suffice to control hemorrhage in the marginal and partial varieties of placenta praevia.
- 6. If the patient is not in labor and a marginal or partial variety of placenta praevia is present, rupture the membranes and insert a Voorhees' bag of sufficient size to fully dilate the cervix when it is expelled. The size of the bag used will depend upon the age of the fetus. If a central placenta praevia is present and the child is dead or immature, an opening may be made in the placenta and a bag introduced. In selected cases, when the fetus is immature or

dead, a Willett's forceps may be used. Attach a weight to the bag or forceps.

- 7. Watch the patient carefully and when the bag comes through the cervix, or preferably just before, place her again on the delivery table and effect delivery by the method that seems indicated. This may be spontaneously, by breech extraction, forceps, or version and extraction.
- 8. Watch for hemorrhage during the third stage of labor and manually remove the placenta if bleeding is profuse.
- 9. Give 1 cc. of pituitrin intramuscularly, before or after the placenta is expressed, and 1 cc. of ergotrate intravenously after expression of the placenta. Uterine tamponade is rarely necessary if the uterus is carefully watched.
- 10. For the case that would seem best treated by cesarean section, operation may be performed immediately after vaginal examination.
- 11. Give plasma and/or transfusions as indicated, before the examination, during the labor, delivery, or operation, and after delivery. Give a sufficient amount to replace blood loss. Carry out measures to combat shock. Glucose and saline may be given, too, as needed.

Watchful expectancy has no place in the treatment of placenta praevia. As soon as diagnosis is made, proceed with some method of treatment. Waiting may spell disaster.

Vaginal tamponade should rarely, if ever, be used, for it always introduces the possibility of infection, and it is doubtful if it ever serves the purpose for which it is intended.

Accouchement force, meaning "forceful dilatation of the cervix and delivery of the child," has no place in the treatment of placenta praevia. The cervix is merely lacerated or torn, and this means more hemorrhage and another avenue for infection.

#### Summary and Conclusions

- 1. A series of 86 cases of placenta praevia is presented.
- 2. Of these, 95.3 per cent were treated by conservative measures.
- 3. The Voorhees' bag was used in 76.6 per cent.
- 4. The maternal morbidity was 40 per cent, and the mortality 2.3 per cent.
- The uncorrected fetal mortality was 55.8 per cent.
- 6. Two factors, prematurity and asphyxia, keep the fetal mortality high.
- 7. Not enough importance is attached to the initial hemorrhage in the latter half of pregnancy.
  - 8. Transfusions of whole blood and/or

plasma in amounts sufficient to replace blood loss will save many lives.

- Infection should be feared as much as hemorrhage in treating placenta praevia.
- 10. Placenta praevia should be treated by conservative measures in the large majority of

cases, and cesarean section should be used in the small well-selected group.

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## SAFEGUARDS NEEDED IN ESTABLISHING INTENSIVE TREATMENT OF SYPHILIS

An indication of the safeguards necessary in establishing the value of the intensive method of treatment of the venereal diseases is contained in a preliminary report on the activities of the Chicago Intensive Treatment Center, published in the Intensive Treatment Center, published in the November 27 issue of the Journal of the American Medical Association. The report is presented by Herman N. Bundesen, M.D., Theodore J. Bauer, M.D., and H. Worley Kendell, M.D., Chicago, with the collaboration of R. M. Craig, M.D., G. X. Schwemlein, M.D., E. C. Sittler, M. F. Steves, M.D., E. A. Strákosch, M.D., Ph.D.; A. A. Rodriquez, M.D., and H. C. S. Aron, M.D., Ph.D. The Chicago Intensive Treatment Center is operated under grants received from the Federal

operated under grants received from the Federal Works Agency, the U.S. Public Health Service, the State of Illinois, and the Chicago City Council. It was dedicated on November 29, 1942, as an added facility in the Venereal Disease Control Program of the Chicago Health Department. As a wartime emergency activity, the primary objective of the Center is to control effectively, and as quickly and safely as possible, the spread of venereal diseases by making noninfective those who spread these diseases.

Three methods of intensive treatment for early syphilis are being employed at the Center—two comparative and one noncomparative method. The two comparative methods are: modified Simpson, Kendell, Rose (artificial fever in air-conditioned cabinet plus arsenobismuth therapy), referred to at the Center as fever-chemotherapy, and the modified Schoch-Alexander method (multiple, short term arsenobismuth therapy), called intensive chemotherapy at the Center. The noncomparative chemotherapy at the Center. The noncomparative method is the modified Eagle-Hogan method (multiple syringe, long term arsenobismuth therapy), called long term intensive chemotherapy at the Center.

The average stay is seven days for patients in the fever-chemotherapy section and fourteen days in the intensive chemotherapy section. The two methods are being compared to determine whether

intensive chemotherapy, or one of its modifications may furnish an intensive arsenobismuth treatment to be given safely without the necessity for the elaborate equipment and highly trained personnel needed in fever-chemotherapy. Only those patients rejected for the two comparative methods are given long term intensive chemotherapy.

Patients admitted to the Center are given an extensive physical examination before treatment is started. The authors of the report say that "In our experience, intensive treatment is contraindicated in early active tuberculosis and certain forms of cardiovascular disease.

From November 10, 1942, through October 8, 1943, 931 patients were given fever-chemotherapy for syphilis. Two cases—the thirteenth and sixty-ninth—terminated fatally. After the first death the maximum dosage of mapharsen was reduced.

Following the second death, only those patients were allowed to receive either of the comparative treatments who were found to be free of active tuberculosis. Since the second death, 862 have been treated consecutively with no fatality or serious reactions. After the deaths improvements also were made in various phases of the fever treatment,

In a series of 488 patients, the number of failures has been 1.6 per cent (2 serologic and 6 clinical

Three hundred and ninety patients were treated with intensive chemotherapy, 172 receiving 1,200 mg. of mapharsen within ten days; 5.8 per cent failures were noted. The method was discontinued since reactions severe enough to stop treatment were encountered in 11.9 per cent of the cases treated. A modification was then adopted whereby all the mapharsen was given within seven days. The observation period of this group of patients is too short to allow any conclusion. Of 81 patients treated with long town intended. treated with long term intensive chemotherapy, 52 have thus far become serologically negative and one patient developed serologic relapse. There have been no clinical relapses to date.

# ITALIAN MOSQUITOS HUNTED IN WAR AGAINST MALARIA

The Eighth Army is being followed through the swamps of southern Italy by a man under government orders to capture several hundred malarial mosquitos of three varieties.

When the Japanese occupied Java they obtained 93 per cent of the world's quinine output. So British chemists have found a way of mass production of a substitute called melacrin.

Chemists have been asking what will happen to

persons who take the medicine before they get malaria, so members and friends of an ambulance unit took melacrin for a time and then allowed mosquitos to bite them. Only one has had malaria.

The chemists are still not satisfied. Their collection of continuous and the still not satisfied.

lection of captive mosquitos will not be complete until the man in Italy has sent them the three varieties he is pursuing.—Dispatch from Reuter, London

## CONCERNING THE EARLY STAGES OF CHRONIC GLAUCOMA

HARRY S. GRADLE, M.D., Chicago

THE exact number of blind people in these United States is not known accurately, but the proportion is probably about one to a thousand of population, or a little less. That estimate coincides fairly well with the statement that there are between 120,000 and 130,000 blind in the country. The same inaccuracy exists as to the causes of that blindness; but in recent years the increasing prominence of the causative role of glaucoma is coming to be recognized. The present estimates are that somewhere between 15 per cent and 20 per cent of blindness is due to various forms of hypertension; that is to say, between 18,000 and 25,000 people in the United States are blind as a result of glaucoma. And of that number, chronic glaucoma has been the cause in the proportion of ten to one.

It is a well-known fact that when chronic glaucoma is detected early, the ravages of the disease can be prevented in a fairly high percentage of cases, provided that the patient is faithful in respect to treatment and observation. But who is to detect it early? Obviously, the ophthalmologist. The general practitioner may suspect the existence of the condition, but lacks the necessary armamentarium and experience for accurate diagnosis before permanent damage has been done. A small percentage of nonmedical refractionists fall into the same class. The individual may have become thoroughly glaucoma-conscious through the fairly widespread publicity campaign, but the majority of such have a mental and not an ocular hypertension. So it all falls back into the lap of the ophthalmologist, who must not fail his people by lack of knowledge or by careless observation.

All patients seeking ophthalmic advice have something wrong with them, either subjectively or objectively; otherwise they would not come to us for help. Among those people, glaucoma is found to be present in between 1 and 2 per cent, and consequently every ophthalmic patient (past the age of 30 years) is a glaucoma suspect, unless proved otherwise. And the negative proof is sometimes more difficult than the positive. All ophthalmologists diagnose a full-blown case of chronic glaucoma without trouble, but recognition of the pre-glaucomas and the early chronics requires diagnostic acumen. In a suspected case, naturally the first recourse is to the tonometer, but that valuable instrument can give misleading information.

Read by invitation at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 5, 1943.

have the records of five patients who have been under observation upward of four years, who were originally diagnosed as early chronic glaucoma, either in my office or elsewhere by competent ophthalmologists. The diagnoses were made upon tonometric readings in the upper thirties, in one case up to forty-three, but without visual or visual field disturbances. Naturally, pilocarpine was used, which normalized the tension and held it within the so-called normal range. After periods ranging from several weeks to several months, the patients discontinued the miotics, contrary to ophthalmic advice. In these specific cases there has never been a recurrence of the hypertension, nor have any functional disturbances ever developed. In two of them a mydriatic (euphthalmine) was used later without causing any increase in intra-ocular pressure.

Here, then, were five cases of what appeared to be early chronic glaucoma with hypertension but without functional change. Despite the lack of continued treatment, the hypertension subsided spontaneously and in four years time no further indication of glaucoma has developed. How can the facts of that seeming contradiction be reconciled? By the lack of infallibility of any regulatory mechanism. The regulation of normal intra-ocular pressure is the result of the functioning of a most delicate and complex mechanism, much of which is not yet understood. The diurnal variations in pressure in the normal individual indicate that the regulatory mechanism is not inflexible, but is capable of adjustments in accordance with the requirements of various conditions. Ordinarily the pressure variations are small, but it is easily conceivable that conditions could necessitate a temporary expansion of the limits, either upward or downward. Note the hypotension subsequent to an iritis. Regardless of hypothetic explanations, the fact exists that temporary intra-ocular hypertension, lasting from hours to weeks, producing no measurable functional damage and subsiding spontaneously. does occur.

This is a dangerous fact, if it is not recognized that the condition occurs only in exceptional cases. In the average case, such increases in pressure, even when not accompanied by demonstrable functional changes, are the forerunners of chronic glaucoma. The two forms can be differentiated only by refusal of the patient to persist in the use of miotics and by long-continued observation. Inasmuch as the non-pathologic increase in pressure here reported

is the exception rather than the rule, the visual welfare of the patient must be safeguarded by the use of miotics. It is far better to keep a normal eye under a weak miotic than to permit a glaucoma to develop through neglect of that precautionary measure.

For the past fifteen years we have been measuring the intra-ocular pressure tonometrically before and after the use of mydriatics in every individual past the age of thirty years. In 1935 I reported the results of this procedure on 1,000 eyes and found that 2.8 per cent of such individuals developed hypertension after pupillary dilatation. Some were frank early glaucomas that responded positively to dilatation, as well as to other provocative tests. In others, a positive diagnosis of glaucoma could not be made and we were forced to classify them as pre-glaucomas. I proposed this term in 1924 on a somewhat theoretic basis, and it has taken some years to produce actual proof of its existence.

A pre-glaucomatous eye is one that does not present a definite pathologic picture, but does vary sufficiently from the absolute normal to arouse suspicion. Subjectively there are no symptoms. Objectively, the absolute depth of the anterior chamber may be somewhat less than the eye of the patient would indicate, or the angle of the anterior chamber is so acute as to border on the lower limits of the normal. From our goniometric measurements we believe that an angular value of less than 7 degrees is pathologic. The pupillary reactions are normal, albeit somewhat slow. There is no pathologic cupping of the disk, nor other visible evidence of intra-ocular pathology. The visual fields, both peripheral and central, are normal, as is dark adaptation. However, upon instillation of a mydriatic, the intra-ocular pressure increases 12 or 15 or 20 mm. Hg, but is easily controlled with miotics. Other provocative tests may or may not be positive. As can be seen, the majority of evidence justifying a diagnosis of pre-glaucoma is on the negative rather than the positive side. Even a threehour tension curve may show no abnormalities.

How, then, can we confirm the existence of such a condition as pre-glaucoma? Only by willful disobedience of the patient and long-continued observation. I have the records of three patients in whom I made the diagnosis of pre-glaucoma three to six years ago. They were given weak miotics to use and were warned of possible danger, although evidently not impressively enough. All were faithful with the miotics for three months up to two years, during which time no evidence of a developed glaucoma could be found on repeated examination. They then disappeared and were

not seen again for two, two and a half, and four years. In every instance, during that time, typical chronic glaucoma had developed and caused visual acuity and visual field losses.

In contrast to those three positive cases, we have had many cases in whom pre-glaucoma was diagnosed who were faithful in the use of weak miotics, and who, over a period of years, have never developed any subjective or objective findings of chronic glaucoma. Maybe they would not have done so anyhow, but I feel that I have prevented loss of sight in at least some of them by the tentative diagnosis of pre-glaucoma and the preventive therapeutic measures adopted.

This question of the presumptive diagnosis of pre-glaucoma or early chronic glaucoma is not one of the most difficult decisions that have to be encountered in the whole clinical realm of glaucoma, for if the suspicion exists that the patient has or is subject to increased intra-ocular pressure, it is simple to institute a regular regime of miotic care that in the majority of instances will prevent damage. But if the condition is allowed to exist until actual hypertension and its resultant damage have occurred, then not only is the condition more difficult to stabilize, but also intensive miosis and even surgery may be required.

One final word concerning the use of miotics in pre-glaucoma and early chronic glaucoma. The less frequent the use, and the weaker the strength of the miotic required to normalize intra-ocular pressure, the brighter is the ocular future of the patient. Too strong a miotic used too often will produce damage just as surely as will an error in the reverse direction. Consequently a tension curve under miotics is of greater value than is a curve without miotics. There is a happy balance that can be reached by careful individualized study, which in turn means the difference to the patient between lifelong light and perpetual dark.

#### Discussion

Algernon B. Reese, M.D., New York City—Dr. Gradle has called our attention to a number of interesting and worth-while features of glaucoma diagnosis and treatment. He has always been an advocate of early diagnosis of the disease because its inroads are irrevocable and its treatment more effective in the early stages. He places responsibility for early diagnosis in the lap of the ophthalmologist, stating that every patient over 30 years of age is a glaucoma suspect. This is particularly true, as we know, in certain instances; namely, in patients with hyperopia of any appreciable amount, patients with shallow anterior chambers, and patients with high normal intra-ocular pressure.

I should like to emphasize three other categories which are also suspect: first, those in whom the cen-

tral blood vessels of the disk are pushed more to the nasal side and the angle made by the superior and inferior branches of the central retinal vessels are more obtuse: second, individuals in whom the difference in the intra-ocular pressure of the two eyes is greater than 4 to 5 mm. of Hg. No one has yet told us what the normal difference in the pressures of the two eyes is. It would be valuable to have this information established. I surmise that a difference of 4 to 5 mm, of Hg is abnormal and, when noted, should be considered a potential omen of glau-

The third category comprises any patients who show symptoms that are unilateral. In this I have noted in three instances that unilateral tearing was

the first symptom the patient presented.

Dr. Gradle also mentions the fact that tonometers can give misleading information. I should like to emphasize the importance of having tonometers checked because the readings of different tonometers vary considerably. In New York the instruments can be checked at a station for this purpose which is sponsored by the National Society for the Prevention of Blindness.

Dr. Gradle mentions an interesting group of patients to which my attention has never been drawn i.e., those whose intra-ocular pressure undergoes a temporary rise to a level above normal, the duration of the rise varying from hours to weeks. This produces no measurable functional damage. warns, though, that the spontaneous disappearance of this tendency toward glaucoma is an exception and that usually it is the forerunner of chronic glaucoma. Since having this group of cases called to my attention, I have been able to locate two such instances more or less recently seen. In one case the pressure in the left eye was 45 mm. of Hg, while that in the right was normal. Pilocarpine drops were prescribed for one year, during which time the pressure in each eye was normal. The drops were discontinued, and for the past three years at regular intervals there has been no rise noted in the intraocular pressure. The fields of vision are normally full. After the blind spots had been charted several times. I noted a tail developing on each blindspot above and below. These tails elongated at the later examinations, and it was finally conclusively determined that they represented angioscotomata. This feature is mentioned because in cases where intelligent, cooperative, and observing patients are repeatedly examined they may detect such angioscotomata around the disk as they become more familiar with the procedure, and these angioscotomata may be confused with glaucoma scotomata.

Another instance of a temporary rise in intraocular pressure was observed in a patient whose right eye measured 35 mm. of Hg and the left eye 30 mm. of Hg. Pilocarpine drops were prescribed and used for six months. They were discontinued, and for the past two years at regular intervals no rise in intra-ocular pressure has been noted. These two cases, therefore, seem to bear out Dr. Gradle's contention that there exists a group in which the increased intra-ocular pressure may be transitory. Dr. Schoenberg might explain these on the basis of temporary emotional stress in individuals predisposed to glaucoma.

We are very appreciative of Dr. Gradle's most interesting paper, which has given us a number of phases of this absorbing subject to think about.

## COLGATE EXHIBIT REVEALS THAT SOLDIERS FOLLOW HEALTH RULE OF 1863

Pictures from today's battle fronts show that many of Uncle Sam's fighting men are following, probably by chance, a health rule laid down for soldies.

soldiers eighty years ago.
"Let your beard grow so as to protect your "Let your beard grow so as to protect your support of the soldiers support support of the soldiers support support of the soldie throat and lungs," says the rule, one of eleven suggested for soldiers of the Civil War and approved by Dr. C. B. Coventry, ex-president of the New York State Medical Society. Printed on a pocket-size card, the rules are on display in the Colgate University library among latters and documents University library among letters and documents in an exhibit, "The United States at War, 1775-

"To cure or prevent sore feet, rub bar soap on the inside of your stockings," reads another of

rules.

The rest of the nine are rules commonly ac-

cepted today.

Original war letters and papers of such generals as Washington, Horatio Gates, Lighthorse Harry Lee, William Henry Harrison, Andrew Jackson, Zachary Taylor, Robert E. Lee, Grant, Sherman, Longstreet, and Joseph E. Johnston, and such other figures as Franklin, Jefferson, Madison, Monroe, John Hancock, and John Quincy Adams

are included in the exhibit.

Among the more interesting letters are those in which General Gates writes relative to the "Conway Cabal" to supplant Washington as commander-in-chief of the Army, Zachary Taylor tells the overseer of his plantation early in 1845 that war with Mexico is out of the question, Grant writes curtly to the provost marshal of Baltimore concerning the latter's treatment of released Confederate prisoners, and General Johnston refutes Jefferson Davis' statement that war could have been continued after Lee surrendered.

Also included is a first copy of "Dixie's Land," which Dan D. Emmett, a staunch Union man. wrote in 1860, only to see it adopted shortly afterward as the official battle song of the south.-

Norwich Sun

## CLINICAL STUDIES OF SULFAMETHAZINE

WALSH McDermott, M.D., D. Rourke Gilligan, M.S., Charles Wheeler, M.D., and NORMAN PLUMMER, Maj., (MC), AUS, New York City

CULFAMETHAZINE,\* a dimethyl derivative of sulfadiazine, has been subjected to clinical trial in England during the past year.1,2 From these studies of its use in a total of 120 patients with various infections, it was reported that the drug had high therapeutic effectiveness and low toxicity. In vitro and in vivo experimental studies have shown that it has bacteriostatic activity quantitatively similar to that of sulfadiazine3 or of sulfapyridine.4

Of particular interest is the fact that sulfamethazine and its acetyl† derivative are more soluble in acid urine than are sulfadiazine and acetylsulfadiazine, respectively.4,5 In apparent accord with these solubility characteristics, Macartney et al.1 in their clinical trial of sulfamethazine found no crystalluria or renal complications attributable to the drug.

If sulfamethazine has the same therapeutic effectiveness as has sulfadiazine, the greater solubility of the former drug and its acetyl derivative in the acid ranges of urinary pH would appear to constitute a distinct advantage. Crystalluria and resulting urinary-tract complications have been the most frequently encountered untoward reactions accompanying the use of sulfadiazine. 6,7,8,9 Whereas it has been shown recently 10,11 that crystalluria and resultant renal complications from sulfadiazine can be prevented with appropriate adjuvant alkali therapy, it is obvious that a similar sulfonamide requiring no adjuvant alkali would be more desirable.

On the basis of this single apparent advantage of greater solubility in acid urine, it seemed that sulfamethazine<sup>‡</sup> warranted further clinical trial. Accordingly, 34 patients with various infections (Table 1) were treated with this drug and studies of its pharmacology, toxicology, and therapeutic value were made.

## Blood Sulfamethazine Studies

Of the 34 patients who received sulfamethazine there were 27 with normal renal function who received an initial dose of 1 or 2 Gm. of the drug followed by 1 Gm. at four-hour intervals-i. e., 6 Gm. daily. Blood samples, usually from three to eight specimens drawn on different days, were

From the New York Hospital and Department of Medicine, Cornell University Medical College.

N4-acety'l derivative. ‡ Sulfamethazine was kindly supplied by Lederle Laborastudied for sulfonamide concentrations in all of Analyses were made by the these patients. method of Bratton and Marshall.125

The average blood levels of free sulfamethazine of the individual patients in this group who received 6 Gm. a day of the drug varied from 1.8 to 17.4 mg. per cent (Table 2). This wide range of free blood level in different patients was due largely to the striking variation in the degree to which the drug was acetylated, i. e., from 1 to 74 per cent (Table 2). The total blood levels for the individual patients varied considerably less than the free blood levels, ranging from 6.2 to 17.6 mg. per cent. The blood concentrations of both free and total sulfamethazine and the degree of acetylation were usually fairly constant during therapy in a given individual.

There were 6 patients in whom from 42 to 74 per cent of the blood sulfamethazine was acetylated and in whom the blood levels of free sulfamethazine were consequently all less than 5 mg. per 100 cc. (Table 2). In addition 2 of 3 patients with 32 to 35 per cent acetylated sulfamethazine had free blood levels averaging 4.1 and 5.1 mg. per cent (Table 2). All of the 18 patients with 1 to 25 per cent of acetylated sulfamethazine had free blood levels of 7.5 mg. per cent or more. In the group of 7 patients who received daily amounts of sulfamethazine other than 6 Gm. or who had pre-existing renal insufficiency, 7 to 30 per cent of the blood sulfamethazine was in the acetyl form.

## Urine Sulfamethazine Studies

Chemical analyses of twenty-three urine specimens from 19 patients on the second to fourth day of medication showed from 32 to 93 per cent (61 per cent average) of the urinary sulfamethazine in the acetyl form. In 6 of the 19 patients more than 70 per cent of the urinary sulfamethazine was acetylated; 5 of these 6 patients had a high percentage (32 to 72 per cent) of acetylsulfamethazine in the blood.

Seventy morning urine specimens from 25 patients were examined microscopically for crystalluria due to sulfamethazine medication. Approximately 90 per cent of the urinary pH values, tested with nitrazine paper, were acid of pH 5 to 6. Sixty-five of the seventy specimens showed no crystalluria. Two acid urine specimens from 2 patients showed large numbers of crystals

<sup>\* 2-</sup>sulfanilamido-4,6-dimethylpyrimidine.

<sup>†</sup> Throughout this paper, "acetyl" derivative refers to the

<sup>§</sup> When known amounts of free and acetyl sulfamethasine were added to blood in vitro the results of analyses agreed closely with the amounts added.

TABLE 1.—Diseases for Which Sulfamethazine Was Administered

Infection	Number of Patients
Pneumococcal pneumonia Atypical pneumonia	11
Other respiratory tract infections	10
Meningococcal meningitis Urinary-tract infections with calculi	4
Miscellaneous infections	4
Total	34

which were shown to be chiefly acetylsulfamethazine on analysis by the Bratton and Marshall method.<sup>12</sup> The filtrates of the urines in these instances showed very high percentages (87 and 93 per cent) of the dissolved sulfamethazine in the acetyl form. One acid urine specimen from each of three other patients also showed crystals believed to be sulfonamide precipitates. In all 5 patients with proved or suspected crystalluria from the drug, the degree of acetylation in the blood and urine was high. As noted below, one of these patients showed gross hematuria of short duration.

## Comparative Studies of Acetylation of Sulfamethazine and Sulfadiazine

In 3 patients who acetylated sulfamethazine to a high degree, the drug was replaced by sulfadiazine in the same dosage. In all of these patients a strikingly lower degree of acetylation occurred with the latter drug (Table 3). Whereas the total blood sulfonamide level was approximately the same with both drugs, the blood level of free drug was much higher during the period of therapy with sulfadiazine.

## Toxicity

Four of the 34 patients who received sulfamethazine showed one or more toxic reactions. One patient developed a rash accompanied by fever; another had a rash, fever, and leukopenia (a leukocyte count of 2,600); another had leukopenia (a leukocyte count of 2,700) without other reaction. There was no granulocytopenia associated with the leukopenia in either instance, and the leukocyte counts of both patients rose promptly to normal after sulfamethazine was discontinued. In a patient with aplastic anemia with a leukocyte count of approximately 2,000, no effect of the drug on the leukocyte count was The fourth instance of toxicity was gross hematuria and albuminuria occurring in a patient on the fourth day of therapy, with microscopic hematuria continuing for two days after the drug was stopped. This patient had shown a high degree of acetylation (52 to 72 per cent) of the blood sulfamethazine, and crystals believed to be sulfonamide crystals were present in the

TABLE 2.—Decree of Acetylation of Blood Sulfamethazine in 27 Patients Treated with 6 Gm. per Day of the Drug

			- ,		
Group 1 2	Number of Patients 18 3	Sulfames Acety Limits 1-25 32-35	stage of thazine in I Form Average 12 34	Sulfame Limits (mg. per cent) 7.5-17.4 4.1-8.6	Blood ethazine Average (mg. per cent) 11.1 5.9
3	6	42-74	59	1.8- 4.8	3,5

urine specimen, showing gross hematuria. There were no instances of nausea and vomiting attriutable to the drug. No significant changes in the erythrocyte counts occurred during therapy.

#### Clinical Results

In the group of 18 patients who received 6 Gm. daily of sulfamethazine (Table 2) and who showed the higher blood levels of free drug, the clinical response was similar to that usually seen with similar doses of sulfadiazine. Infections caused by organisms known to be sulfonamide-susceptible, such as the pneumococcus, responded well; patients with infections not usually benefited by sulfonamide, such as atypical pneumonia, were not benefited by sulfamethazine.

Three of the 7 patients with average blood levels of less than 5 mg. per cent (Table 2) had pneumococcal lobar pneumonia. In all of these three, the clinical course was complicated by incidents suggestive of relapse or progression of the infection. One of these patients died—a 61-year-old Negro man with type I pneumococcal pneumonia and bacteremia, who was admitted on the fourth day of his disease. Although during the latter part of his course he received sulfadiazine and antipneumococcus serum, the question arises whether the course of the infection might have been different had the patient not had so low a blood level of free sulfonamide (due

TABLE 3 —Comparative Studies of Acetylation of Sulfamethazine and Sulfadiazine

Pa- Date	Drug (6 Gm.	Free (mg. per	Total (mg. per	amide Level	Urine Sulfon- amide (Per- centage Acety-
tient 1943	Daily)	cent)	cent)	Acetylated	lated)
M. F. 3/26	SM*	$^{2.6}$	73	64	
3/29	SM	2.1	7.5	72	89
3/30	SM	3.9	_ • .		90
3/31	SM	2.6	8.4	69	89
4/1	SD*	5.7	7.0	19	51
4/2	$\mathbf{s}\mathbf{p}$	8.2	9 5 8 4	14	34 27
4/3	SD	69	8 4	18	27
E S 4/12	SM	$\frac{2}{2}\frac{6}{8}$	83	68	
4/14	SM	28	94	70	55
4/16	SD	10 8	11.6	7	
M. R. 4/20	SM	6.7	11.0	39	
4/21	ŠM	٠			85
4/22	SM	2.9	8 0	64	88
4/24	SD	6.9		~ *	30
4/26	SD	5.7	6.9	17	42

<sup>\*&</sup>quot;SM" and "SD" signify sulfamethazine and sulfadiazine, respectively.

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N4-acetyl derivative ‡ Sulfamethazine was kindly supplied by Lederle Laboratories, Inc.

studied for sulfonamide concentrations in all of these patients. Analyses were made by the method of Bratton and Marshall.125

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<sup>§</sup> When known amounts of free and acetyl sulfamethasine were added to blood in vitro the results of analyses agreed closely with the amounts added.

5. In certain patients in whom sulfamethazine was acetylated to a high degree it is questioned whether the clinical responses were as satisfactory as would have been obtained with the same dosage of sulfadiazine with consequent higher blood levels of free drug.

6. On the basis of the findings in this small series, it appears that therapy with sulfamethazine is less satisfactory and reliable than is therapy with sulfadiazine together with appropriate adjuvant alkali therapy.

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#### ARMY MEDICAL LIBRARY

The Surgeon General's Library, or the Army Medical Library, as it is now officially called, has been for generations in a class to itself. Not only is it the greatest collection of medical literature in the world, but its great catalogue and the Index Medicus and its successor, the Cumulative Index Medicus, the latter a joint undertaking with the American Medical Association, has made this collection, and incidentally other medical libraries. extremely useful. We doubt that many realize the full value of these indices. We have always had them, and, like life, liberty, and the pursuit of happiness, we take them for granted. One should read Oliver Wendell Holmes' delightful e-say on medical libraries to see what a library was like before the *Index Catalogue*. It was written in 1878 when the "Specimen Fasciculus of a Catalogue of the National Medical Library" had just made its appearance. Dr. Holmes compares "back volumes" that were not indexed to a "lock without a key, a ship without a rudder, a binnacle without a compass, a check without a signature, or a greenback without a goldback behind it.

It is hard to realize the wide scope of the Library's possessions. A number of years ago when the late Sir Kederath Das, of Calcutta, was the guest at a Washington meeting of the American Gynecological Society, we asked him what he wanted to see on his free afternoon. He replied that the only thing he really wanted to see in America was the Surgeon General's Library. When we reached the Library we introduced him to Mr. Toepper, who showed us around. In the course of the visit he took us up in the stacks to the Hindoo section, where there were more Hindoo books than Dr. Das had seen in India. We were interested to hear that the most used book in Dr. Das' library in Calcutta was the Index Catalogue. He had all three se-

On another occasion we visited the Library with Professor Miles Phillips, who is quite an authority on old books, especially those pertaining to the history of obstetrics. Dr. Claudius Mayer showed us some recent acquisitions from Russia, books that had belonged to the late Czar, and among them were Russian editions of old English obstetricians and men-midwives. Professor Phillips, who knew the works of these men well, could not believe that such editions of their work existed.

From our medical school days we have looked upon the Library as one of those perfect things that has existed as such always. It was quite a shock when we learned that before John Shaw Billings' time it was a collection of only a few thousand books. Colonel Jones, the present librarian, has a sketch of the early history of the Library, together with its present status and future plans, in a recent number of the Journal of the American Medical Association (J.A.M.A. 132: 1074, 1943). We were interested to learn that the Library has had its ups and downs. The low point of the Library occurred between the years of 1930 and 1936. Interestingly enough, the only book that we ever failed to find in the Library was published just before this period. While the war has postponed the erection of the new building, authorization for which has already been passed by Congress, it has benefited the Library in another way. rare-book collection has been sent to Cleveland for safety. This gives some needed room in the old building, which has long since been overtaxed, and it also affords an opportunity for rehabilitating these priceless volumes. Instead of being packed away in bombproof vaults, the rare books in Cleveland are being restored and are also available to students. Photostats and microfilms can be produced in Cleveland as readily as ever.-Virginia Medicine Monthly

to high acetylation of the sulfamethazine) on the first day of therapy.

The remaining 4 patients with low blood levels had either self-limiting infections such as acute pharyngitis or infections not usually responsive to sulfonamide therapy. Therefore, the therapeutic effectiveness of sulfamethazine in these patients was impossible to evaluate.

There was one other death in the entire group of 34 patients who received sulfamethazine. The patient was a 30-year-old woman with type I pneumococcal pneumonia complicated by pyelonephritis and anemia. She received type-specific antipneumococcus serum and intravenous sodium sulfadiazine in addition to oral therapy with sulfamethazine. Blood levels of free sulfonamide were constantly high (average 18.3 mg. per cent), so that there is no reason to believe that the sulfonamide therapy was inadequate.

#### Discussion

Several investigators1,4,13,14,15,16 have viously reported that sulfamethazine and also sulfamerazine\* are acetylated generally to a greater extent than is sulfadiazine. It has also been reported1,4 that some patients treated with sulfamethazine show particularly low blood levels of free drug associated with high levels of acetylated drug. The incidence of this finding was not stated in these reports.1.4 In our series, 7 of 27 patients receiving 6 Gm. of sulfamethazine daily had average blood levels of free drug of less than 5 mg. per cent (1.8 to 4.8) associated with an average of 55 per cent (34 to 74) of the total drug in the blood in the acetylated form. In contrast, following the same dosage of sulfadiazine, the lowest average blood level of free drug in 79 patients was 4.5 mg. per cent.17 Furthermore, the acetylated sulfadiazine in the blood is almost never greater than 25 per cent of the total.18

Because of the marked variability in the degree of acetylation of sulfamethazine in different patients, the dosage required to maintain a given blood level of free drug varies and is unpredictable. It is of interest that Hall and Spink 16 have recently reported difficulty in maintaining adequate blood levels of free sulfamerazine in some patients due to excessive conjugation of this drug. It is further to be noted that because of excessive acetylation of sulfamethazine the concentration of acetylsulfamethazine in the urine of some of the patients in our study became so high that crystalluria, in one instance associated with renal complications, occurred even in the presence of blood levels of free drug of less than 5 mg. per cent. Conversely, with much higher blood levels of free sulfamethazine,

crystalluria did not occur in patients in whom the drug was not acetylated excessively. The absence of crystalluria under these latter circumstances was predicted from the solubility characteristics of the drug<sup>5</sup> and its acetyl derivative.<sup>15</sup>

In our small series treated with 6 Gm. of sulfamethazine daily there were 3 patients with pneumococcal pneumonia with low free blood levels of drug consequent to high acetylation. In these patients the clinical course was complicated by relapse or progression of the infection. The question arises whether the clinical course in these pstients might not have been more satisfactory had they been treated with the same dosage of sulfadiazine, with consequently higher blood levels of free drug. It may also be of importance that sulfamethazine is bound<sup>19</sup> in the plasma, presumably to plasma albumin, 20 to a much greater extent than is sulfadiazine, 19,20,21 so that for a given blood level of drug the level of dialyzable (i.e., unbound) drug in the plasma and in the tissues is only approximately a third to a half as great for sulfamethazine as for sulfadiazine.19 Moreover, evidence has been presented20 which indicates that only the dialyzable portion of a sulfonamide in the plasma is bacteriostatically effective. This difference in the degree of binding of these two drugs which show approximately equivalent in vitro bacteriostatic activity3 would appear to be of therapeutic significance and might be particularly important in patients with low blood levels of free (i.e., unacetylated) sulfamethazine.

Because of this unpredictable, high acetylation, which carried with it the twofold disadvantage of a low blood level of free drug and a high urine level of acetyl derivative, it would seem that sulfamethazine is not so satisfactory a sulfonamide as is sulfadiazine. This superiority of sulfadiazine is particularly marked now that it has been shown that adjuvant alkali therapy will prevent the crystalluria and resulting urinary-tract complications arising from its use. 10,11

## Summary and Conclusions

- 1. The pharmacology, toxicity, and therapeutic effectiveness of sulfamethazine have been studied in 34 patients with various infections.
- 2. An importantly large percentage of these patients showed very high acetylation of sulfamethazine.
- 3. This high degree of acetylation resulted in exceptionally low blood levels of free drug from the 6-Gm. daily dosage of sulfamethazine.
- 4. Crystalluria, in one instance accompanied by gross hematuria, occurred in patients who showed this excessive acetylation of sulfamethazine.

<sup>\* 2-</sup>sulfanilamido-4-methylpyrimidine.

2. The substance is not previously present in the body.

3. The substance should not affect the con-

dition being studied.

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- 4. The substance should be quickly inactivated or eliminated to enable duplicate tests to be repeated within a short time interval without injury to the patient.
- 5. There should be a minimum or a complete absence of side-effects.
  - 6. The method should be simple.
- 7. The end point should be distinct and easily perceived.
  - 8. The drug should be generally available.
- There should be no effect on the hemodynamics from the dosage used.
- 10. The method should not be dependent upon the patient's cooperation.
- 11. Failures with the agent should be minimal.

# Photoelectric Dye Method in Relation to Requirements

- 1. The substance must be nontoxic in the amounts used.—Methylene blue (tetramethylthionin hydrochloride) is commonly used by urologists for testing kidney function, and is administered in amounts varying from 10-30 cc. of a 1 per cent solution without any apparent ill effects. This substance was reported to have been given by mouth to dogs in amounts of 270 mg. per kilogram for twenty-eight days without any demonstrable effect.6 Hartmann, Perley, and Barnett<sup>7</sup> confirmed Wendel's<sup>55</sup> work on sulfanilamide methemoglobinemia with methylene blue administered in amounts of 400 mg. per day in six divided doses to children weighing less than 20 kilograms and stated that to those weighing more, up to 800 mg. may be given safely in divided doses per day. Toxic effects have been reported with amounts of 20 to 50 mg. per kilogram of body weight, administered parenterally,9 whereas the amounts used in our series never exceeded 1.5 mg. per kilogram of body wieght. It is apparent from our experience and the data just cited that the amounts used in this test are well within the limits of safety. We have not encountered any of the hemolytic effects reported by Huyghebaert, 10 or the hives and burning of the lips described by Wendel, 59 or any ill effects following rapid intravenous injection of the dye. At no time was there evidence of renal irritation found after its use.11 Perivenous injection causes a slight painful reaction which subsides after a few hours without any local necrosis.
  - 2. The substance is not previously present in the body.—This fact is self-evident with

regard to methylene blue, or other dyes used, except methemoglobin.

- The substance should not affect the condition being studied.—It has been frequently reported by workers in this field that some of the substances advocated may aggravate conditions present, which contraindicate their use. For example, sodium dehydrocholate (decholin) is known to materially aggravate any existing severe hepatic injury and is thus contraindicated as a test in cases of obstructive jaundice or severe liver damage.12 Likewise, this substance is held to be contraindicated in cases of bronchial asthma. Collapse, as a result of respiratory failure, has occurred with the use of sodium cyanide.13a,b Carbon dioxide, advocated as a measure for lung-to-respiratory-center time, often aggravates pre-existing tracheobronchial abnormalities. The severe local irritating effects of saccharin and ether,14 with production of venous thrombosis or phlebitis, are well known to workers in this field. As already indicated above, the use of methylene blue as a test substance is free from these objections.15
- The substance should be quickly inactivated and eliminated to enable duplicate tests to be repeated without injury to patient.—Although methylene blue is not entirely eliminated from the body through the kidneys for periods varying from twenty-four to seventy-two hours, it is converted into the leuko-derivative through the reducing activity of the blood. Under usual conditions the complete conversion to the leukoderivative takes approximately two minutes to be consummated. This amply suffices for the purpose of the test, since the longest circulation time reported in our series was in cardiac cases with severe decompensation, and the longest time was sixty-four seconds. Tests have been repeated within five minutes with satisfactory results.
- 5. There should be a minimum or absence of side-effects.—In the series studied at the Goldwater Memorial Hospital one patient, in whom the test was performed in a sitting position, complained of slight dizziness when he stood up immediately after the completion of the test. Since then we have routinely made this test with the patient in the supine position and no reactions of any kind occurred. No subjective discomforts have been reported by the individuals tested.
- 6. The method should be simple.—This method does not involve any more difficult procedure than that associated with most subjective methods. The amount of dye solution used rarely exceeded 5.0 cc. Often we were able to obtain results with 2 or 3 cc., which naturally shortened the time of injection considerably. Only in cases of severe decompensation, where

## CLINICAL STUDIES OF CIRCULATION TIME WITH OBJECTIVE (PHOTOELECTRIC CELL—DYE) METHOD

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THE determination of the circulation time L has proved to be of considerable value in clinical medicine. It is commonly defined as the time required for a foreign particle introduced into the circulatory stream to travel to a given point of detection.

It has been determined in a variety of ways. A great many methods (subjective) depend upon the cooperation of the patient; others are objective in that they can be demonstrated without such assistance. When participation of the subject is feasible, it is often possible to obtain a fairly accurate measure; however, even with such cooperation it is sometimes difficult to obtain this measure because of circumstances beyond the control of the subject. It is for this reason that objective methods have been earnestly sought.

A number of methods were used heretofore for this purpose. These have been reviewed up to 1931 by Blumgart1 and more recently briefly reviewed by Bellis;2 and by Koster and Sarnoff3 in 1943. The use of dyes for this purpose has been reviewed by Jablons and Cohen<sup>40</sup> in 1943.

### Method and Technic

Briefly, our method of study consists of the adaptation of a photoelectric cell, and a light source, to the measurement of circulation time.4 The principle involved is that light transmitted through translucent living tissue may be modified by the passage of a dye injected into the blood stream, and this modification may be detected by the reduction of current set up in a photoelectric cell by the transmitted light.

We have utilized for the light source an ordinary pencil flashlight bulb powered by a single or double 3-volt dry-cell battery, mounted on a light carrier, which is attached to a head-mirror type of band by means of a universal joint. The photoelectric cell (35 mm. in diameter, of the selenium barrier layer type) is connected to a pointer type of galvanometer with a fullscale deflection at 10 microamperes. The entire apparatus is self-contained in a portable wooden casing with cover and carrying strap. †

The dye employed was a 1 per cent solution

of methylene blue in distilled water put up in sealed ampules of 10 cc.‡

Patients were placed in the supine position when ambulatory, otherwise the test was performed at the bedside. The head band containing the photo cell and the light source was attached firmly and the photo cell adjusted so that its active side was in contact with the pinns of the ear, while the light was placed directly behind the ear. The light was so adjusted that maximum transmitted light centered on the surface of the photo cell. When the light was turned on, the needle of the galvanometer usually showed full-scale deflection. In fair-skinned types it was necessary to reduce the amount of current registering by turning the potentiometer knob toward the O point until the needle registered 70-80 on the scale. Although sensitivity is greatest at full-scale deflection, we have found it more satisfactory to maintain the needle at 70-80 so that deflection in either direction is easily recognized.

The patient is prepared for injection in the usual manner observing a precaution emphasized by previous investigators—i.e., that the arm be placed so that the antecubital vein should be approximately on a level with the right auricle of the heart. A standard 5- or 10-cc. syringe with an 18- or 20-gauge needle is used. A tourniquet is applied to facilitate entering the vein and as soon as the needle is in the vein (a small amount of blood is aspirated to be sure) the tourniquet is released. After a pause of a few seconds the entire contents (2-5 cc.) are injected rapidly into the vein.

The time of injection should not exceed two seconds, and, whenever possible, should not require more than one second. At the instant of injection the stop watch is started, and is stopped at the instant the deflection of the needle of the galvanometer is seen.

## Value of Method

It is generally agreed among most investigators 54,6 that certain qualifications are essential for a substance which is to be used intravenously for the determination of the circulation time. These requirements are:

1. The substance must be nontoxic in the amounts used.

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943.

From the Second Medical Division, Goldwater Memorial

Hospital, and the First Medical Division, City Hospital, New York City.

<sup>†</sup> Manufactured by the Photovolt Corp., New York City.

<sup>‡</sup> We are indebted to C ply of methylene blue.

COMPRESSIVE STOCKS OF CONCUMBION TOPS AT FIRSTON, CO. AND OCCUPATED RESPONAL BOSPITALS

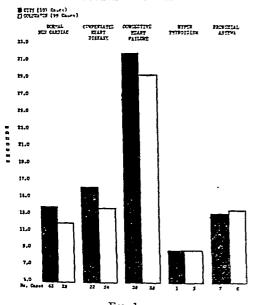


Fig. 1.

other methods-viz .: that the average circulation time is prolonged in patients suffering from congestive heart failure. The average value is normal in those who have not experienced failure or who have recovered from failure. This may be the explanation for the slight difference present only in the cardiac group, compensated and noncompensated, studied at City Hospital and Goldwater Memorial Hospital. In the first-named institution patients are admitted in varying stages of acute cardiac failure, without and with previous similar episodes. These patients remain in the hospital from two to six weeks and are often transferred to a hospital for chronic diseases and are considered clinically compensated. There is a slight discrepancy in the limits of normal between the two series reported in the groups classified as compensated cardiacs. This may be due to individual differences in determinations or slightly different criteria as to what constitutes clinical compensation. This would account for some of the borderline cases reported in this series, and would explain the upper limit of seventeen seconds in the compensated group in the Goldwater Memorial series, as compared with the upper limits of 20 seconds in the City Hospital group (Fig. 1).

The circulation times of the bronchial asthma groups in both institutions show very close agreement, being 13 and 13.3 seconds at City and Goldwater Memorial Hospitals, respectively, both being well within the limits of normal. Al-

though associated with intense dyspnea, diffuse rales, and cyanosis, this normal circulation time sharply differentiates bronchial from cardiac asthma, which is always characterized by a prolonged circulation time. In general, what is true of bronchial asthma is also true of other pulmonary conditions-e.g., emphysema, pulmonary fibrosis, pneumonia, pleurisy with effusion, tuberculosis, bronchiectasis, and neoplasms.

We have confirmed with this method other previously reported observations of the increased velocity of the blood flow in cases of hyperthyroidism, and the retardation—i.e., the shift to normal-produced by adequate iodine administration or surgery.

This method has proved of value as an index of therapeutic response to digitalis, diuretics, and other measures employed to combat heart failure.

### Summary

- An objective method is herewith presented for the determination of the circulation time. based on the principle of the modification of light transmitted through translucent tissue to a photoelectric cell, by intravenously injected nontoxic dye, and the resulting change produced in the electric current.
- This method fulfills all of the requirements stipulated for an agent utilized for such determination.
- The results obtained in 200 cases in 2 different institutions agree generally with those reported for subjective methods under ideal conditions.
- This method has the added advantage of being independent of patient cooperation, making its use possible in cases of stupor, coma, aphasia, language difficulties, mental defectives, infants,
- It is possible with this method to obtain accurate recorded data.

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pooling of the blood is suggested by the increased venous pressure, did we get the impression that larger amounts might have caused a much greater deflection of the galvanometer The detector apparatus in our method is a simple photoelectric cell, as described above. connected with thin wires to a sensitive indicator instrument (galvanometer) away from the body in contrast to the inconveniences associated with the use of the fluorescein and radioactive sodium and radium deposit methods.

The end point should be distinct and easily perceived.—The deflection of the needle occurs instantaneously as the modification of the current is produced. The extent of the deflection varies, however, with a number of factors. In anemic and thin individuals it is considerably greater than in heavy plethoric types. Since the photo cell casing amply shields the cell from extraneous light, modification of the current is reflected by the change in the galvanometer needle and the greater the change produced by the dye the more striking the deflection.

8. The drug should be generally available.-Urologists and internists have used the drug for many years for testing kidney function and for other therapeutic purposes. It is available through numerous pharmaceutical houses.

There should be no effect on the hemodynamics from the dosage used.—Studies made on the pulse rate and blood pressure in a number of cases did not show any appreciable changes.

The method should not be dependent upon the patient's cooperation.—Patients who are in stupor, in coma, or have sustained cerebral accidents with resultant aphasia; patients who have congenital or acquired deaf mutism, language difficulty, or defective mental development; and infants all offer obstacles to all the subjective methods of determining circulation time. This method is in no way affected by these difficulties. Emotional perturbation and apprehension and the extreme discomfort and restlessness associated with bronchial asthma do not interfere with the successful performance of this test.

Failures with the agent should be minimal. -In initial studies, utilizing an apparatus with relatively fixed position of light source and photoelectric cell a few blank results occurred which we found were due to excessive compression of the tissues by the photoelectric cell and light On proper adjustment of the instrument, more easily achieved by the improved model now in use, and repetition of the tests, a satisfactory determination resulted in every case tested to date. In dark-skinned or deeply pigmented individuals light intensity sometimes be increased to insure success.

## Possible Sources of Error with This Method

It is essential with this method to assure an adequate concentration of dye in the blood to obtain a clear-cut deflection. When the dye is injected slowly a number of seconds may be required for the deflection to occur-sufficiently to rule out a possible artefact due to any other Occasionally a cough may produce a slight deflection which might be misleading if one is not sufficiently familiar with the typical swing which is produced by the appearance of the dye in the blood stream at the point of detection.

The injection of an amount of dye which through dilution interposes too little screening effect may fail to produce adequate deflection. This may occur in decompensated cardiovascular disease, or in polycythemia where the blood volume is considerably increased. This may be overcome by the use of an adequate amount of dye, usually approximately 5 cc. of a 1 per cent solution. Even in extreme cases of cyanosis, as in advanced heart failure, this amount of dye gives a satisfactory end point. When the tissue of the ear is held too firmly between the photo cell and the light holder the galvanometer needle may not move following the passage of the dyed blood as mentioned previously. We have assumed that this was due to a blanching effect of the area in question caused by compression which interfered with the free flow of blood and the dye which it contained. This proved to be the reason since the adjustment of the light and photo cell, and repetition of the test, always gave satisfactory response.

Table 1 gives a comparative analysis of studies in circulation time made at New York City and Goldwater Memorial Hospitals.

These figures emphasize the point previously suggested by other investigators employing

#### TABLE 1

Goldwater Memorial

Hospital City Hospital Cardiaes Compensated—24 cases Limits—9.0-17.6 gen-Cardiacs Compensated—22 cases
Limits—10.0-20.0 seconds Average-13, 8 seconds abno Average—16.1 seconds
Decompensated—38 cases
Limits—18.2-64.0 sec-Decompensated—38 cases Limits—15.2-60.0 ser-Average—29.3 seconds
Hyperthyroidism—3 cases
Limits—8.2-9.2 ser onds Average—31.8 second Hyperthyroidism—1 case Average—8.8 seconds -31.8 seconds 351-Average—8.8 seconds
Bronchial asthma—6 rases
Limits—8.6-18.8 seconds onds Bronchial asthma-7 cases Limits-10.0-18.4 seconds Average—13.3 seconds
Normal and Noncardiacs, including pulmonary discases, except bronchial
asthma—28 cases
Limits—7.0-19.8 ser-Average-13.0 seconds Normal and noncardiacs, including pulmonary dis-eases, except bronchial asthma—36 cases Limits—8.4-21.6 secbronehial onds lverage-12.9 seconds

Average-13.6 seconds

## THE MANAGEMENT OF INJURIES OF THE COMMON BILE DUCT

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INJURY of the common bile duct may be caused by ulceration from stones or from suppuration, but it most often occurs at operation. Occasionally this is during gastrectomy, but usually it is from clamping, tying, or excising the duct during cholecystectomy. Congenital anomalies, unexpected hemorrhage, or distortion of normal anatomy by infection may confuse the surgeon and lead to injury.

#### Prevention

The common duct will not be injured if it is clearly seen. The first necessity is exposure of the junction of the hepatic, cystic, and common ducts before clamping or cutting anything. If this rule is always followed, most of the hazards are eliminated. It may be helpful during this dissection to have a sponge clamp on the ampulla of the gallbladder to put slight tension on the cystic duct. After the relation of the ducts is defined, then and only then should the gallbladder be removed. There is a real advantage to ligating and dividing the cystic artery before the cholecystectomy, for it greatly reduces the bleeding and prevents obscuring the field by blood.

Strong traction on the gallbladder may pull up a loop of the common duct so that it looks like a continuation of the cystic duct. Clamping or excising this when the gallbladder is removed is the commonest method of ligating the common duct, which otherwise is rather hard to do. This accident can be avoided if only gentle traction is used to assist in defining the junction of the ducts.

In acute cholecystitis there is not only edema and swelling of the tissues but also apparent shortening of the cystic duct from the inflammation. These circumstances make adequate exposure difficult. Some surgeons advocate in these cases dissection of the gallbladder from above downward in order to develop it on a pedicle of the cystic duct. This is usually a bloody method. By using suction to keep the field dry, the usual technic of cholecystectomy can ordinarily be used even in acute cases.

Congenital anomalies may cause confusion for, while in 75 per cent of cases the cystic duct joins the hepatic at an acute angle, yet in 17 per cent they run parallel, and in 8 per cent the cystic duct twists in front or behind the hepatic duct. The abnormalities of the arteries are even more

frequent, the most dangerous being those cases in which the right hepatic artery lies in front of the common duct and runs parallel to the cystic duct.<sup>2</sup>

Unexpected hemorrhage deep in the wound is always alarming. It may follow the slipping of a clamp or tie off the cystic artery. In the effort to control the bleeding the hepatic duct near its bifurcation may be injured. Leahy, speaking of these injuries, says, "They are the result of excitement, I think. The cystic artery gets loose, bleeds into the deep operative field. The inexperienced operator fails to realize that by pinching the hepatic artery with his finger he can stop the bleeding artery, wipe the field dry, find the bleeding vessel, and control it accurately. Instead of this, he clamps wildy and picks up the hepatic duct in the clamp."

## Immediate Repair of Injury

If the operator discovers a damaged or severed hepatic or common bile duct, it should be repaired at once. In a divided duct the upper end is easy to find for it leaks bile. The lower end may be harder to locate but it should be sought until found, for it will never be any easier to identify than it is immediately after injury. The two ends of the divided duct should be united by end to end anastomosis. If a T tube is used, the vertical limb should not come out through the suture line but rather above or below it. A duct that has been crushed by a clamp should be allowed to heal over a tube. If it is badly macerated. the devitalized tissue may be excised and an endto-end anastomosis done. These methods of immediate repair will often spare the patient many complications later.

## Management of Stricture

The end result of unrepaired common duct injury is biliary fistula or stricture with increased pressure, liver damage, and cholangeitis. Stricture is a dreaded complication for it may have a devastating effect. It has been treated by the following methods:

1. Simple Dilatation.—This is unsatisfactory, for even though the stricture can be dilated at operation, it cannot be so treated repeatedly, and hence it reforms. The adage of "once a stricture always a stricture" applies here.

2. Excision of the Stricture with End-to-End Anastomosis.—If this can be done without tension on the suture line, it is the best method. Eliot<sup>4</sup> reports 38 cases with 24 good results.

3. Division of the Stricture with Plastic Repair

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943.

From the Department of Surgery, University of Rochester School of Medicine and Dentistry, Rochester, New York.

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## LONGEVITY OF WAGE-EARNERS INCREASES IN FIRST YEAR OF WAR

Notwithstanding the casualties of war and the hardships on the home front, the average length of life among the many millions of Metropolitan Industrial policyholders, as computed from the prevailing mortality rates, rose to the all-time high figure of 64.18 years in 1942. This record, bettering the previous year's figure by nine months, marks the thirteenth successive year of gain in average length of life for this group. The increase has amounted to about 15 years in the quarter century since the first World War and to about 30 years in the past six decades.

The improvement in longevity has been greater in the industrial population than in the general population of the United States. In 1911 the policyholders were at a disadvantage to the extent of 6.4 years in the expectation of life at birth; the difference has diminished over the years and has now been virtually wiped out. This striking evidence of life conservation has greatly increased the forces now available to man the battle lines and the production lines.

The longevity of the American people, as reflected by this large group of insured persons, has reached such high levels that, on an average, half a century of life lies before a white boy of 16 or a young woman of 21 years. The so-called weaker sex has the greater longevity by about five years.

Another interesting fact to be noted in this table is that at age 35 the Industrial policyholder has on an average as many years before as behind him.

The next quarter century will undoubtedly bring many changes in the lives of the American people, and even those now in midlife will live to see many of these developments. Under present mortality conditions, white men 45 years of age and white women close to 50 still have a quarter century of Thus, the postlife before them, on the average. war world will be built not alone by those who are

now young, but also by those who have already accumulated the experience and wisdom of years.

The splendid record for longevity in 1942 among Metropolitan Industrial policyholders reflects the very favorable mortality experience during the year. Death rates of less than one per 1,000 were recorded for white boys of ages 7 to 13 years, and for white girls in the broad age range 4 to 18 years. Among the latter, phenomenally low rates of less than 0.5 per 1,000 were observed at ages from 9 to 12 years. Equally remarkable were the records in early adult life. Thus, among white females, death and the second series of the second seri death rates were less than two per 1,000 up to age 30, and less than three per 1,000 up to age 37. The present low level of the death rate, particularly at the younger ages, reflects in large measure the accomplishments of preventive medicine and the public health movement in recent decades. Here, indeed, is the reward for the constant effort to control tuberculosis, typhoid fever, diarrhea, and enteritis, the communicable diseases of childhood, pneumonia, appendicitis, and a number of other preventable causes of death. The greatly reduced death toll from accidents over the years has likewise saved large numbers of lives.

In 1942, as in other years, the longevity of colored persons was appreciably below that of the white. At age 5, the expectation of life of insured colored boys last year was about 4½ years less than for white boys; among girls the disparity amounted to seven years. The differences are even more striking when strated at the second seven years. striking when stated in terms of mortality. For example, at ages 27 to 32 the death rate for colored men in 1942 was at least twice that for white men. Among females at ages 14 to 25 years the death rate for the colored was more than three times that for the white. It is obvious that the colored population is still a fertile field for concentrated public health effort. This group is now experiencing the longevity that the white population did two decades ago. -Bull. Metropolitan Life Insurance Co.

## BIGGS MEMORIAL LECTURE ON APRIL 6

The Hermann M. Biggs Memorial Lecture, which is held annually in Hosack Hall at the New York Academy of Medicine under the auspices of the Committee on Public Health Relations, will be delivered this year on April 6 at 8:30 P.M. by Wilber A. Sawyer, M.D., director of the International Health Division of the Rockefeller Foundation. The subject of Dr. Sawyer's address will be "International Health."

This lecture is open to the general public.

# Diagnosis

## CLINICOPATHOLOGIC CONFERENCES

FOURTH MEDICAL DIVISION OF BELLEVUE HOSPITAL

Dale: December 16, 1943

Conducted by: Dr. Emanuel Appelbaum

C. H., a 58-year-old white handy man, was admitted to the Fourth Medical Division of Bellevue Hospital on October 18, 1943. He had enjoyed good health until two years before admission, at which time he began to suffer from sharp epigastric pain which occurred one to two hours after meals and which was relieved by alkalis. There was no associated nausea or vomiting, loss of appetite, or change in bowel habits and the patient received no treatment. During these two years the pain recurred from time to time and the patient lost 10 pounds in weight. Six months before admission the pain became increasingly severe and constant and was no longer relieved by alkalis. Three or four months later a smoker's cough which the patient had had for many years became quite severe and productive of a moderate amount of white phlegm but there were no hemoptysis, chills, fever, or night sweats. Two or three weeks preceding admission the patient suddenly developed a sharp pain in the lower left side of the chest. This pain was aggravated by coughing and radiated to the opposite side of the chest and to the back. There was some improvement in all these symptoms, including the cough, shortly before the patient sought admission.

The patient had had no significant previous illnesses. An injury to the left side of his chest at the age of 18 years resulted in permanent deformity. His general habits were good and his family history was noncontributory.

Physical examination on admission revealed a fairly well-nourished and well-developed white man who did not appear acutely ill. The temperature was 99.2 F., pulse 88, respirations 20, and the blood pressure 100/60. Examination of the head and neck revealed no abnormalities. The chest showed flattening of the left anterior portion. There was slight dullness of both interscapular areas and the right base and slight diminution of breath sounds at the right base. No rales or wheezes were heard. The heart showed no abnormality although the heart sounds were distant. The abdomen was scaphoid and there was voluntary rigidity and tenderness over the upper abdomen. The liver was

felt three fingerbreadths below the costal margin but no other organs or masses were palpable. There were bilateral indirect inguinal herniae present and there was a small pilonidal cyst at the base of the spine. Rectal examination revealed the presence of internal and external hemorrhoids. The extremities showed sclerotic changes of the vessels.

Laboratory Data.—The urine showed a specific gravity of 1.020 and other tests were negative. The red blood count was 4,120,000, with 11 Gm. of hemoglobin. The white blood count was 13,000, with 70 per cent polymorphonuclears, 15 per cent lymphocytes, 11 per cent monocytes, 2 per cent eosinophiles, and 2 per cent stab forms. The blood nonprotein nitrogen was 32 mg. per cent; the albumin-globulin ratio, 3.8/2.9 Gm. per cent. The cephalin flocculation test was negative. The blood calcium was 9.6 mg. per cent; phosphorus ranged from 5.05 to 3.85 mg. per cent, and the acid phosphatase was 6.1 Bodansky units and the alkaline phosphatase, 9.4. The blood amylase was 9.8 units. A stool specimen for blood was 1 plus to the guaiac test. Examination of gastric contents revealed 4 plus occult blood with the benzidine test. Fasting contents showed 10° of free hydrochloric acid and 29° total acidity; one hour after the administration of histamine there were 8° of free hydrochloric acid and 17° total acidity.

Roentgenograms were reported as follows: A postero-anterior view of the chest disclosed a large parahilar mass on the left side. Examination of the gastrointestinal tract revealed the stomach to be normal. There was evidence of multiple ulcerations of the duodenal bulb and fixation of the loops of the second portion of the duodenum. On intravenous pyelography the lower pole of the right kidney was found to be 7.5 cm. below the iliac crest and the lower pole of the left kidney at the level of the fourth lumbar vertebra. There was very dilute concentration of the dye in the right ureter and renal pelvis and none on the left. There was no gross pathology of the lumbar spine.

Course.—The temperature and pulse remained normal except for slight terminal rise. During the twenty-five days of his hospitalization the patient showed rapidly progressive weakness and emaciation. He was ambulatory for the first two weeks and during that time complained

of the Duct.—The immediate results appear favorable, but the late results are poor because of return of the stricture. There are not many cases available for analysis.

- 4. Reconstruction of the Duct over a Tubethe Wilms-Sullivan Operation.—A tube is placed in the upper and lower ends of the duct and surrounded by omentum, connective tissue, or vein wall. The results are discouraging for the tract fibroses and constricts. Eliot4 reports 35 cases most of them failures.
- 5. Anastomosis of the Hepatic or Common Duct to the Stomach, Duodenum, or Jejunum.-This operation has two faults: (1) stricture at the anastomosis; (2) cholangeitis from ascending infection due to the lack of the sphincter of Oddi. Regarding this, Whipple<sup>5</sup> said, "The rare successes, not the many failures, appear in the literature." Allen<sup>6</sup> said, "One wishes to avoid, if possible, anastomosis between the duct and the gastrointestinal tract, since under these circumstances an ascending infection is so apt to occur." The results of Eliot's review4 show:

Hepatoduodenostomy: 41 cases; 11 cases well Choledochoduodenostomy: 27 cases; 5 cases well

These figures do not reflect the incidence of hepatoduodenostomy, for it is a not uncommon operation, and many cases go unreported. The results may be better with David's method2 of anastomosis.

- Transplantation of a Biliary Fistula.—This method was fairly popular ten years ago, but it is gradually being discarded. This view is stated by Leahy<sup>8</sup> as follows: "It is my opinion that the operation is bound to be followed by a good many failures as it is really a makeshift procedure."
- 7. Implantation of a Vitallium Tube.—In those cases with extensive loss of the duct or irreparable stricture, the author has permanently implanted a vitallium tube to take the place of

the duct or to hold open a strictured area. 9,10 This method has been widely used, but it is still too early to judge the permanent effect in a large series.

## Summary

1. Injury to the common bile duct occurs most frequently during cholecystectomy from: (a) insufficient exposure; (b) strong traction on the gallbladder which angulates the common duct so that it looks like a part of the cystic duct; (c) inflammation which shortens the cystic duct; (d) anatomic abnormalities which confuse the relations; and (e) blind efforts to control bleed-

Injury to the common duct may best be prevented by a careful dissection of the relation of the cystic, hepatic, and common ducts before anything is clamped or cut.

3. Injury is best repaired by immediate endto-end suture of the duct.

4. The late effect of injury is stricture. This can best be treated by excision and end-to-end anastomosis when the stricture is small. The stricture reforms if this is done when there is tension on the suture line. In extensive loss of the duct or long strictures the use of a permanently implanted vitallium tube has been helpful. Both of these procedures preserve the function of the sphincter of Oddi and help to prevent cholangeitis which so frequently follows anastomosis of the duct to the gastrointestinal tract.

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# SOCIOLOGISTS SEE EFFECT OF MARRIAGE ON CRIME RATE

Among men and women 50 or more years old with an unbroken marriage there is a lower crime rate than among persons in the same age group who are single or divorced, it was reported at the convention of the American Sociological Society, which was held recently at the Hotel McAlpin in New York City.

Dr. Otto Pollak, of the University of Pennsylvania, who presented the report, pointed out, however, that this crime record does not apply to homicides. There, he said, the relation seems to be reversed. The middle-aged man who resorts to murder is usually married and his victim in

the majority of cases is either his wife or a female Relatively few women in this age group under relative.

take crime in any form, the sociologist reported. Dr. Robert Graham Caldwell, of the University of Delaware, reported that the available statistics indicate that neither the whipping post nor imprisonment effectively deterred those who have been so punished from again committing crimes. He cited as significant the fact that those who received the greatest amount of personal attention subsequently had the lowest rate of relapse into criminal

habits.

as we have here. I would like to add a fourth possibility—carcinoma of the body of the pancreas. This would not obstruct the biliary tract and would show itself as pressure on the prepvloric region or the greater curvature of the stomach. As to the mass in the hilar region, I would consider this as metastatic, not to the lung itself, but to the mediastinal nodes. Carcinoma of the body of the pancreas is my first choice. As far as the possibility of carcinoma appearing at the site of peptic ulcer is concerned, I have seen several such cases and, only recently, had a patient who died of generalized metastasis eighteen months after operation for typical peptic ulcer. Pathologic examination of the operative specimen showed typical small nests of carcinoma cells around the periphery. The Mayo Clinic group also has reported several cases of peptic ulcer degenerating into carcinoma.

Dr. Herman O. Mosenthal: The history in this case is of little help. The laboratory findings in the urine seem rather contradictory. It has been our experience that a negative pyeloram is of value in ruling out kidney disease, but abnormal findings on intravenous pyelography are frequently misleading. Pain in the back is consistent with the diagnosis of carcinoma of the body of the pancreas.

DR. HARRY A. SOLOMON: I would like to say that failure to obtain visualization of the dye on intravenous pyelography is frequently due to the administration of fluids before the x-rays are taken.

Dr. Max Trubek: All the laboratory data is contradictory. The clinical chest findings are not clear cut and do not mean anything. I would favor metastatic carcinoma to the mediastinum. I do not feel that carcinoma of the body of the pancreas is a possibility, for the patient usually has back pain at night also, loss of weight, often stool disturbances, and a mild diabetes. The amylase as recorded is normal and should be elevated without any extensive pancreatic destruction. There need not be icterus if the head is uninvolved. However, I believe that the primary lesion is in the prepyloric region of the stomach and that it is a carcinoma with metastases to the liver and lungs. There was no evidence to support tumor in the kidneys or prostate.

Dr. Zachary Sagal: Why was the diagnosis of duodenal ulcer made?

Dr. EMANUEL APPELBAUM: The long history of epigastric pain occurring after meals and relieved by alkalis, and the X-Ray Department's interpretation of the gastrointestinal series made me feel that we had to accept the existence of duodenal ulcer.

DR. CATHERINE R. KELLEY: For primary

carcinoma of the bronchus the course was too rapid. The mass seen on x-ray was primarily in the mediastinum rather than in the lungs and is a group of mediastinal glands. I would say that the patient had a carcinoma of the gastrointestinal tract. Dr. Appelbaum, what would you say was the cause of death?

DR. EMANUEL APPELBAUM: The patient died of progressive asthenia and emaciation, as most carcinoma patients die.

### Pathology

DR. ROBERT POPPITI: At necropsy, the body was that of a normally developed, poorly nourished 55-year-old white man with bilateral ankle edema. There was 1,000 cc. of clear ambercolored fluid within the peritoneal cavity. The inferior margin of the liver descended five cm. below the xiphoid process. There were no changes in the heart other than an atherosclerotic plaque at the base of the anterior leaflet of the mitral valve. A few atheromatous plaques were found on the internal surface of the aorta in the region of the bifurcation. The left lung was enlarged-it weighed 880 Gm. A few fibrous adhesions were found on the posterior surface of the upper lobe. Two cm. from the carina, the wall of the left main bronchus was markedly thickened, expanding into a mass measuring 4 cm. in diameter. The mass extended into the left upper lobe but did not ulcerate into the lumen of the bronchus. The cut section of the tumor was soft, gray, and necrotic. The tracheobronchial and hilar nodes on the left side were greatly enlarged, being filled with soft gray tumor tissue. The right lung was congested and edematous.

The liver was firm and enlarged—it weighed 2,500 Gm. Scattered throughout were numerous tumor nodules which varied from 2 mm. to 2 cm. in diameter. Several large tumor-filled lymph nodes were found in the hepatoduodenal ligament. The spleen, pancreas, and adrenals showed no noteworthy changes.

The left kidney was small and weighed 20 Gm. The left renal artery was hypoplastic and communicated with the aorta through a tiny orifice. The right kidney was large and weighed 350 Gm. Aside from the increased size, it showed nothing unusual.

The prostate was asymmetrically enlarged due to the presence of adenomata within the left lateral lobe.

In the duodenum, a short distance from the pylorus, was a small ulcer measuring 5 mm. in diameter. The underlying duodenal mucosa was thick and fibrosed. Several diverticuli were found in the sigmoid.

Microscopic examination revealed an oat-cell

frequently of pain in the back. The cough was never remarkable. On October 26 moist rales were noted in the right lung. These increased somewhat in the next few days and persisted. On November 6 a constant low-pitched wheeze in the left interscapular area was noted. Bronchoscopy was done and was reported as entirely negative. By November 5 the patient was quite apathetic and dehydrated. Oliguria was marked: the blood nonprotein nitrogen had risen to 64 mg. per cent and the urine concentration test showed specific gravity of 1.010. The white blood count at this time was 9,500. Daily infusions of glucose in saline with amino acids were started and one transfusion given, but the patient died on November 12 in a comatose state.

#### Discussion

DR. EMANUEL APPELBAUM: This is a very interesting though rather complicated case. It seems to me that there are two important questions to be answered. In the first place, we have to decide whether we are dealing with a single disease or with more than one clinical entity. Secondly, we have to determine whether or not the patient had a malignancy. This involves also a consideration of the sites of the primary lesion and of the metastasis. In addition, a few problems of lesser importance remain to be discussed.

The staff recognized at the outset the complex nature of this case and challenged me to make a diagnosis. When I first examined the patient I was impressed, mainly, with the abnormal physical signs at the base of the right lung, the tenderness in the epigastrium, and the enlargement of the liver. My diagnosis then was bronchogenic carcinoma with metastasis to the liver.

However, it soon became apparent that the case was not quite so simple. For one thing, the gastrointestinal roentgenogram was reported as showing multiple ulcerations of the duodenal This interpretation, however, was challenged by one observer, who regarded the gastroduodenal deformity as a carcinomatous defect. Another surprise finding was the left parahilar mass shown in the chest film. As you have heard, no distinct abnormal physical signs were found clinically over that area. The negative bronchoscopy further added to the con-

In the light of this rather confusing information it became difficult to establish a definite diagnosis. The following major interpretations were considered:

Carcinoma of the stomach with metastasis to the liver and mediastinal glands. One had

to reconcile this diagnosis with the patient's history, which was definitely suggestive of peptic ulcer. It could be assumed that the cancer was on an ulcer basis. In this connection, it may be noted that there is still a great deal of controversy as to the frequency with which gastric ulcer eventually becomes malignant. Investigators of the Mayo Clinic, notably Wilson and McCarty, are of the opinion that a high percentage of ulcers develop into cancer. On the other hand, many observers, including Ewing and Schindler, doubt completely the existence of cancer on an ulcer basis. It is generally accepted that gastric cancer may occur in 2 to 3 per cent of the ulcer cases. It must also be borne in mind that carcinoma of the stomach may begin with ulcer symptoms, without the presence of ulcer. With regard to metastasis, it may be noted that gastric carcinoma does not as a rule metastasize to the mediastinal glands but rather to the pulmonary lymphatics, producing carcinomatous lymphangitis.

2. The second interpretation was that the patient suffered from two disease entities, namely, a bronchogenic carcinoma with liver metastasis and a duodenal ulcer. However, if one assumed that the parahilar mass was at the site of the primary lesion, it was difficult to explain the negative bronchoscopy. It was, of course, possible that the primary carcinoma was located in a bronchus other than the one examined and the mass was composed of mediastinal

glands.

The third diagnosis was primary carcinoma of the liver with metastasis to the mediastinal glands. The duodenal ulceration was considered as an independent entity.

It was also suggested that the parahilar mass might be a benign neoplasm. This view, how-

ever, did not gain much support.

My own conclusion was that the patient suffered from two disease entities, namely, duodenal ulcer and bronchogenic carcinoma with metastasis to the liver and the mediastinal glands. I have already mentioned the possibility of the primary lesion being in a bronchus other than the one examined. The terminal rise in the blood nonprotein nitrogen was probably due to dehydration. I have no adequate explanation for the failure of the dye to appear in the pelvis of the left kidney.

DR. ZACHARY SAGAL: I think that the x-rays show definite prepyloric pathology with stasis of the second portion of the duodenum and obstruction of the third portion. This appears quite clearly. The X-Ray Department had the advantage of fluoroscopy, which might show that the prepyloric defect is due to spacm. Carcinoma will produce such an x-ray picture

## Special Article

### THE DIAGNOSIS AND TREATMENT OF PNEUMONIA

Recommendations by the Pneumonia Advisory Committee of the New York City Department of Health

THERE has recently been a large and increasing number of deaths from pneumonia in New York City in spite of the availability of the sulfonamide drugs. Because of this the Pneumonia Advisory Committee to the Department of Health has recommended the release of a statement to the medical profession calling attention to the necessity of early diagnosis and adequate treatment of pneumonia.

In New York City during the past month the number of deaths from primary pneumonia reported to the Department of Health has far exceeded the average number of deaths which would be expected during this period of the year. The number of reported deaths from primary pneumonia is larger than it has been for some years, and is particularly striking since it is occurring in an era when sulfonamide drugs are available. It is also high in comparison with deaths in pneumonia reported in many of the years of the pre-sulfonamide era. This increase was closely associated with the present outbreak of upper respiratory infections which may have contributed to the increase in the number of deaths.

The available evidence on cases of pneumonia in New York City during the present outbreak indicates that the etiology of such cases cannot be related to any particular micro-organism and that many different micro-organisms are involved. These include pneumococci of various types, the beta-hemolytic streptococcus, Staphylococcus areus, influenza bacillus, and Friedländer bacillus.

The intelligent management of the pneumonia patient requires that an etiologic diagnosis be established. It has been disappointing to note that since the advent of the sulfonamides there has been a gradually decreasing interest on the part of physicians in determining the bacterial etiology of pneumonia in their patients. The number of bacteriologic examinations of sputum performed by the Bureau of Laboratories of the New York City Department of Health has been insignificant in comparison with the number of reported deaths.

In considering the diagnosis and treatment of

\* These recommendations were considered timely by the New York City Pneumonia Advisory Commutee at a meeting on January 5, 1944. The wave of pneumonia was not confined to New York City. In New York State, excluding New York City, more deaths were reported in December, 1943, than in any other December on record, and most of the excess deaths were attributed to pneumonia.—Editor

pneumonia patients, the following points are stressed:

- 1. There are a number of symptoms occurring in pneumonia which should lead to a suspicion of the presence of that disease and which often help in determining the occurrence of pneumonia in a patient suffering from upper respiratory infection or influenza. These include:
  - (a) Shaking chill.
  - (b) Pleural pain.
  - (c) Rusty or bloody sputum.
  - (d) Continued high fever.
  - (e) Cyanosis.
  - (f) Rising pulse rate.
  - (g) Rising respiratory rate.
  - (h) Shortness of breath.
  - Persistence of fever accompanied by cough and expectoration.
  - (j) Recurrence of fever following apparent recovery from the initial respiratory disease.
- A knowledge of the bacterial etiology of the pneumonia is of great value in interpreting the course of the patient's disease, ascertaining reasons for failure of sulfonamide administration, indicating need for other types of therapy. and interpreting the occurrence of complications. It is desirable that a bacteriologic examination of the sputum, including pneumococcus typings and blood cultures, be performed in all cases of pneumonia as soon as diagnosis is made. Such bacteriologic examinations are an absolute necessity when patients do not respond favorably to 18-24 hours of adequate sulfonamide therapy. Delaying the bacteriologic examination while awaiting results of therapy increases the difficulty of ascertaining the etiologic agent.
- 3. The sulfonamide drugs which are most effective in the treatment of bacterial pneumonia are sulfadiazine, sulfathiazole, and sulfamerazine. An accepted dosage schedule for sulfadiazine and sulfathiazole consists of an initial dose by mouth of 4 Gm. followed by 1 Gm. every 4 hours until the symptoms have subsided and the temperature has been normal for 48 hours. In the case of sulfamerazine the schedule is similar except for a dosage of 1 Gm. every 6 to 8 hours instead of every 4 hours.

Where patients are seriously ill or in the presence of vomiting, it may be desirable to substitute for the initial oral dose an intravenous dose consisting of 5 Gm. of the sodium salt of

carcinoma of the left bronchus with secondary carcinoma in the hilar lymph nodes, liver, and spleen. Sections taken through the duodenal ulcer revealed rather deep penetration of the wall with a marked chronic inflammatory and fibroblastic response.

## Anatomic Diagnoses

Oat-cell carcinoma of the left main bronchus with secondary carcinoma in tracheobronchial lymph nodes, liver, and spleen. Pulmonary edema.

Chronic fibro-adhesive pleuritis, bilateral, Chronic fibro-adhesive pericarditis.

Atherosclerosis of aorta and mitral valve. Hypoplasia of left renal artery with atrophy of left kidney.

Hypertrophy of right kidney. Chronic duodenal ulcer. Diverticuli of sigmoid.

Ascites. Adenomatoid hyperplasia of prostate.

#### "HOMEMADE" PENICILLIN

To the Editor:

Since July, 1941, the Northern Regional Research Laboratory, which is one of four regional research laboratories operated by the Bureau of Agricultural and Industrial Chemistry, Agricultural Research Administration, U.S. Department of Agriculture, has been extensively engaged in research on the production of penicillin. This work has been broad in scope, including the isolation of many new penicillin-producing organisms, spore selection to secure higher producing strains, improvement of the culture mediums, and isolation and purification of the penicillin itself.

During recent weeks a number of scientific articles and press releases have appeared indicating that the production of penicillin preparations suitable for external use is a comparatively simple matter that can be undertaken in laboratories possessing only limited facilities, or even in the kitchen. The work thus reported, in some cases, may constitute noteworthy contributions to the field of penicillin therapy, and it is not our wish to minimize in any way the possible importance of these investigations. We do, however, feel that the time has come when a word of caution should be given. Statements to the effect that Penicillium notatum is the green or blue-green mold found on bread, cheese, or other foods are quite misleading if, in fact, not actually dangerous. This species does often occur on these products, but so do a great variety of other bluegreen molds. In the genus Penicillium there are literally scores of blue-green species which can be distinguished from P. notatum and its allies only by painstaking laboratory cultivation and microscopic examination. This fact is illustrated by our work of recent months. We have made a concentrated effort to isolate as many strains as possible of P. notatum, P. chrysogenum, and other closely related species and have examined hundreds of samples of molded foods, fruits, soils, and other possible sources of material. We consider it a conservative estimate that not one out of fifty of the blue-green molds encountered belonged to the P. notatum group. Not more than one out of one hundred represented the species P. notatum itself, and only a limited number of these produced appreciable yields of penicillin.

The metabolic products of only a few of the other blue-green species of molds have been adequately studied, and it is entirely possible that among them exist some species or strains that are capable of producing, in considerable quantity, substances as toxic to animals as to certain pathogens which infect them. A number of blue-green molds, such as P.

citrinum, P. spinulosum, P. puberulum, P. aurantiovirens, Aspergillus clavatus, A. fumigatus, and Gliocladium fimbriatum, are already known to produce bactericidal substances, some of which are quite toxic when injected into laboratory animals. One therefore should be extremely careful in the selection and maintenance of cultures for use in the production of penicillin.

Contamination of P. notatum cultures with other blue-green species or with pathogenic organisms is also a matter of serious concern. This is emphasized by the fact that, in certain recent cases, experienced workers have started with a good penicillin-producing culture and subsequently found this to have become contaminated or even replaced by

an entirely different species or strain. In the hands of inexperienced workers, or in laboratories

with inadequate facilities, this possibility is multiplied many times. If a contaminating organism should produce some material toxic to man, the dangers involved might be very considerable. In the present state of our knowledge of the metabolic products of the blue-green Penicillia and Aspergillias a whole, the indiscriminate selection of newly isolated cultures for penicillin production should not even be considered until their correct identity is established.

Owing to the pressure of other work, the staff of this laboratory is not in a position to check the

correctness of all cultures which may be used in this type of experimentation. We have, however, deposited with the American Type Culture Collection, 3900 Reservoir Road, Washington, D.C., cultures of the two strains of P. notatum which are being used almost universally in industry for the production of penicillin, and these are available on request

for a nominal charge.

Another possibility which must be considered when using these crude forms of penicillin is that the patient may conceivably become sensitized to mold protein, which is inevitably present in such preparations. The danger of this would be particularly great when these protein-containing solutions are applied to an extensive burned area. Commercial preparations of penicillin are protein free and have been thoroughly tested for bactericidal activity, progens, toxicity, and sterility.

activity, pyrogens, toxicity, and sterility.

In summary, we feel that there is inherent danger in the proposed practice of using "homemade" penicillin, for the reasons outlined.—Letter in the J.A.M.A. signed by Kenneth B. Raper, Ph.D., and Robert D. Coghill, Ph.D., senior microbiologist and chief, respectively, of the Peoria, Ill., Fermentation Division, Northern Regional Research Laboratory

### Honor Roll

## Medical Society of the State of New York

## Member Physicians in the Armed Forces

#### Supplementary List

The following list is the sixteenth supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, and December 15, 1943, and the January 15, and February 1, 1944, issues.—Editor

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#### A FRIENDLY GESTURE

A recent announcement which should prove of interest to American obstetricians and gynecologists comes from England. It relates to the endowment of a lectureship by an anonymous donor, a Fellow of the Royal College of Obstetricians and Gynecolo-The interest from a fund of one thousand guineas is to be devoted to a lecture every second year alternately by a member of the Royal College on the subject of infertility and by an obstetrician or gynecologist from the United States on any topic selected by him. This would mean that an invitation to a American to the control of t tion to an American participant would be possible every fourth year and the honorarium would amount to about seventy pounds or the equivalent of some three hundred dollars.

The Royal College of Obstetricians and Gynecologists was founded in 1929 by W. Blair-Bell of Liverpool, who was its first president, with William Fletcher Shaw of Manchester as secretary. The latter, after having served as president for the past five years and being knighted, is now retiring from

office and is being succeeded by Eardley Holland of London. The endowed lectureship commemorates Sir William Shaw's presidency and the anonymous donor wishes to demonstrate and further the friendship felt by our English colleagues toward the American profession. As such, it is worthy of our gratitude and appreciation. The postwar period, with means of communication fully restored, should witness the development of closer bonds between the great English-speaking countries. The interchange of ideas through the medium of personal contacts between groups interested in special branches of medicine can accomplish much, not only among the participants, but among those whom they serve in a professional capacity. It is to be hoped that these objects may be possible of execution at an early date when the specter of war has been eliminated and opportunity offered again for more peaceful pursuits.—From January, 1944, issue of the American Journal of Obstetrics and Gynecology

sulfadiazine or sulfathiazole or 4 Gm. of sodium sulfamerazine dissolved in a liter of physiologic saline solution, or in a 5 per cent solution in sterile distilled water. Solutions of these drugs in physiologic saline solution may be given subcutaneously in concentrations of 1 per cent or less.

Sulfonamide administration should be accompanied by an adequate fluid intake (3,000-4,000 ml. in an adult) and by the use of alkali sufficient to maintain an alkaline reaction of the urine. 6 Gm. (90 grains) of sodium bicarbonate as an initial dose and 2.5 Gm. (40 grains) of sodium bicarbonate every 4 hours has been recommended as the dosage for adults except when nephritis or other contraindicating disease is present). The primary purpose of such therapy is to maintain a urinary output of at least 1,200-1,500 ml. per day.

Great caution must be exercised in the administration of fluids to patients with heart disease or to those who have evidence of congestive cardiac failure. The administration of fluid in these patients must be guided by the urinary output. Fluid administration in such patients should be limited to the minimum amount which will assure such urinary output.

The use of sulfonamide drugs in the treatment of simple upper respiratory infections is undesirable. When the severity of an upper respiratory infection is an indication for sulfonamide administration, investigation for the presence of pneumonia or other complicating disease should be instituted and the drug should be given in therapeutic amounts similar to the schedule indicated above. Small doses of sulfonamides over long intervals may produce drug-fast strains of micro-organisms, and may sensitize the patient to the drug. Therefore, small doses of sulfonamides over long intervals are to be avoided.

Patients receiving sulfonamide drugs should be watched for the occurrence of symptoms due to the toxic action of the sulfonamides. These include:

- (a) Hematuria, oliguria, anuria, and flank pain.
- (b) Skin rashes.
- (c) Drug fever.
- (d) Extreme nausea or vomiting.
- (e) Agranulocytosis.

With the exception of (a), these symptoms usually do not appear until the patient has been receiving the drug for about a week. If sensitivity to one drug becomes apparent, another should be substituted, although sulfamerazine and sulfadiazine should not be substituted for each other.

4. When a patient has been receiving adequate sulfonamide therapy in accordance with a schedule similar to that in paragraph 3 and does

not respond to such medication within 18-24 hours. the patient should be re-evaluated. Such reevaluation should include a complete physical examination to determine the status of the pneumonia, the presence of complications of the disease and of toxic reactions to sulfonamides, determination of the level of sulfonamide drugs in the blood, and an evaluation of the bacterlologic findings in the sputum and blood. If such re-evaluation indicates that the continued course of the patient's disease is due to pneumonia, and if the sulfonamide level in the blood is low, additional amounts of drug should be given. If the sulfonamide blood level is adequate (5-10 mg. per cent of free drug in the case of sulfadiazine and sulfamerazine and over 3 mg. per cent in the case of sulfathiazole) and if a type-specific pneumococcus (particularly of the common type) has been obtained from the sputum, or if a typespecific pneumococcus has been obtained from the blood culture, type-specific antipneumococcus serum therapy should be begun immediately. Such therapy should be preceded by the taking of a history of allergy and the performance of a skin and a conjunctival sensitivity test. At least 100,000-200,000 units of serum should be administered within 6 hours from the time when serum administration is begun.

5. The availability of specific therapy for pneumonia has not decreased the importance of careful, repeated physical examinations of the patient and the many nonspecific measures which assist the patient in combatting his disease. These include adequate nursing care, provision of complete rest, oxygen therapy, maintenance of fluid balance and the treatment of pleural pain with codeine. Such treatment is best administered in a hospital, particularly in the light of the present shortage of nurses. It is recommended that all cases of pneumonia be hospitalized early if hospital facilities are available. It is extremely important that all severe cases be hospitalized.

6. Patients who have had pneumonia for more than a few days and have not responded to adequate treatment should be suspected of having developed complications of the disease.

The most important of these is empyema, the diagnosis of which is facilitated by an x-ray examination of the chest, as is the spread of pneumonia to previously uninvolved portions of the lungs. Other complications include otitis media, thrombophlebitis, endocarditis, and meningitis. The early diagnosis of empyema and its proper treatment may be life-saving.\*

<sup>\*</sup> The following physicians are members of the Pneumonis Advisory Committee to the Department of Health of the City of New York: David P. Barr, Russell L. Cecil, Maxwell Finland, Frank Horsfall, Colin M. MacLeod, James W. Jobling, E. H. Loughlin, James E. Perkins, Director, W. Tillet, and I. Ogden Woodruff.

## Medical News

#### American Medical Association to Hold Annual Session in 1944

A NNOUNCEMENT has been made officially that the American Medical Association will hold its 1944 annual session June 12-16 in Chicago. The House of Delegates will meet in the Palmer House, where the Scientific Exhibit and the Opening General Meeting will also be held. The Registration Bureau and the Technical Exhibits will be in the Hotel Stevens, and the meetings of the various sections will be assigned to these hotels and, in addition, to the Hotel Sherman and the Morrison Hotel.

A prospective feature of the annual session is a national medical war meeting at which there will be present distinguished representatives of the medical military services of the United Nations as well as other eminent speakers. The program and the place of this and other meetings will be announced as

plans are completed.

At the Conference of Section Secretaries with the Council on Scientific Assembly held in the headquarters of the American Medical Association in December, consideration was given particularly to salient features of the scientific programs. Plans were made for many round-table and panel discussions and for symposiums on subjects of current interest, including such topics as the amino acids and the vitamins in nutrition, the dysenteries, postwar trends in obstetrics, industrial ophthalmology, new advances relating to the uses of penicillin and the sulfonamides, head injuries, asphyxia, the neuroses, fatigue, nutrition and rehabilitation, new aspects of endocrinology and urology, malaria and other tropical diseases, blood transfusion, and new advances with blood and blood substitutes. A special section will be devoted to the interests of the general practitioner, and section officers have been appointed to work out a program designed particularly for this group. Already the applications for places on the program are sufficient to indicate the usual assembling of scientific discussions enhanced by new methods of presentation and exhibition.

Since the transportation and hotel facilities of Chicago are likely to be taxed to the utmost under war conditions, those who plan to attend the annual session should make the necessary reservations just as soon as the official announcement appears in the Organization Section of the Journal and in the advertising pages in the near future.—J.A.M.A.

#### W.M.C. Releases Opinion on Waivers for Physical Defects

WHAT are the implications of waivers for known physical defects which physicians sign upon being appointed for limited service in the Army Medical

Corps?

The answer to this recurrent question is clarified in a recent opinion on the subject made by the Office of the Judge Advocate General of the Army. opinion, released by the Procurement and Assignment Service of the War Manpower Commission, is as follows:

"Response is made to your oral inquiry whether acknowledgment, on the accompanying form, of existing physical defects would preclude a person from thereafter claiming benefits to which he would otherwise be entitled on account of the service connected aggravation of such defects. As to the defects acknowledged, the execution of such an instrument merely provides additional evidence of their existence, and to that extent would operate to preclude the person involved from thereafter claiming benefits on account of them. It is the opinion of this office, however, that the mentioned form does not purport to be a waiver of possible future benefits to which the individual might become entitled by reason of any service-connected aggravation of such defects, and would not operate to deprive the individual of any possible benefits on account of such aggravation."

#### Welfare Council Sponsors Open Information Meeting

NEW York City has ample facilities for the treatment of venereally diseased and tuberculous servicemen and Selective Service rejectees, but needs more centers and clinics for men discharged or rejected for psychiatric reasons, leaders and workers in the social service field were told on Wednesday, January 12, at an open information meeting sponsored by the Committee on Information Services of the Welfare Council of New York City at Theodore Roosevelt House in New York City. Four physicians and public health experts directly concerned with the treatment of servicemen and rejectees addressed the meeting.

"The program in New York City for the medical care of venereally infected servicemen is well rounded and all-inclusive," Dr. Theodore Rosenthal, Director of the Bureau of Social Hygiene of the Department of Health, said. "It takes into consideration not cally the infeated individual his sources and tion not only the infected individual, his sources and contacts, but also the necessary public health control machinery." Dr. Rosenthal, who is a special consultant of the United States Public Health Service, said that cooperative relationships for the referral and transfer of venereally infected soldiers and sailors from their military units, on discharge from service, to the civilian community are already in effect and "are working out satisfactorily."

"The Department of Health has for some years had trained workers stationed at the induction center to interview all registrants rejected because of venereal infection," Dr. Rosenthal said. "These men are immediately referred for appropriate treatment to private physicians or to the nearest clinic." In addition, he pointed out, information as to source of infection and contact is obtained and in due course transmitted to the proper civilian authority.

"The introduction of newer and better remedies for the treatment of venereal infection offers great hope," Dr. Rosenthal declared. "The development of rapid, intensive methods of syphilotherapy with the standard arsenical drugs, and more recently the use of penicillin, have been milestones of progress. In gonorrhea, the introduction of sulfa drugs, as well as penicillin, has likewise constituted an advance of the first importance."

Practically all of the men rejected by Selective

## Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.

### Lecture on General Medicine at St. Lawrence and Jefferson Counties

POSTGRADUATE instruction in general medicine was given to the Jefferson County Medical Society on Thursday, February 10, at 6:30 P.M., at the Black River Valley Club in Watertown. A lecture, "Interpretation of Gastrointestinal Symptoms," was delivered by Dr. Albert F. R. Andresen,

professor of clinical medicine at Long Island College of Medicine, Brooklyn.

The St. Lawrence County Medical Society heard the same lecture by Dr. Andresen at 12:00 M. on February 10, at the Potsdam Club, Potsdam,

## General Medicine to Be Topic of Tompkins County Lectures

HREE lectures in general medicine will be given before the Tompkins County Medical Society on Tuesday evenings at 8:30 P.M., at the Tompkins County Memorial Hospital, Ithaca, New York. The first is "The Management of Arthritis, Acute and Chronic," given by Dr. L. Maxwell Lockie, professor of therapeutics and head of the department at the University of Buffalo School of Medicine on February 15.

On April 18 Dr. Byron D. Bowen, associate professor of medicine at the University of Buffalo School of Medicine will deliver a lecture entitled "The Management of Diabetes with the Newer Forms of Insulin."

"Evaluation of the Common Drugs Used in General Practice" is the lecture to be given on May 16 by Dr. A. H. Aaron, professor of clinical medicine at the University of Buffalo School of Medicine.

#### "DOCTOR JONES" SAYS-

Well, it's getting along time for the legislature to meet again and I hear the chiropractors are marshalling their forces: going to make another try at getting a law passed to license 'em. Of course I'm just a doctor and I'm s'posed to be prejudiced-and I am. It ain't their methods-adjusting supposedly misplaced vertebra and all that, although there's nothing to it but what any doctor could use if he was inclined that way. But I'm prejudiced against allowing folks to monkey with human diseases and ailments that aren't qualified by education and training to make a diagnosis and know what they're dealing with. I don't want anybody fixing my car or plumbing that don't know what's the matter. And I certainly value my life and health more'n I do my automobile or water pipes-even

As near as I can find out they didn't have to have any education to speak of to get into these chiro-practic schools—most of 'em that're practicing now. And I understand their courses usually run from eighteen months to three years. In that time they couldn't learn what you have to know to make difficult diagnoses, to say nothing of treatment. couldn't, not even with the education to understand it and real scientists to teach 'em and well-equipped

hospitals to work in.

Why, look at the veterinarians! They have to have a year of college work in basic sciences before they can get into the veterinary school. Then they have a four-year course that's tough. When they get their license their practice is limited to animals. I don't s'nose they'll account is limited to animals. don't s'pose they'll ever ask to be allowed to practice on humans but I'll bet if they did they'd be turned down flatter'n an off-day sponge cake. But with their educational background and thorough study of the medical sciences I figure they'd be safer'n most of these chiropractors.

I know there's always plenty of intelligent people ready to testify that they've been helped by these fellows. I don't question but what they have. But that don't prove their competence. Time and Nature have cured folks the doctors couldn't cure at the time. A lot of 'em were "cured," at least temporarily, by reciting Professor Coue's formula: "Every day and in every way I'm getting better and better." Any kind of a fancy manipulation will give relief in some cases. But the ones that had infections and so on that were made were by their infections and so on that were made worse by their treatment—you don't hear about them. Yes, sir-I knew a fellow that had a broken hip that wouldn't unite that was cured by falling downstairs. But I wouldn't advocate basing a new system of treatment on it. - Paul B. Brooks, M.D., in Health News

## PRIZE FOR RESEARCH IN HUMAN FERTILITY

An award of \$500 will be given in 1944 to the scientist who has made the most significant contribution to research in human fertility—either in the control of conception or the correction of sterility, Dr. J. H. J. Upham, president of the Planned Parenthood Federation of America, Inc., has announced.

Any scientist anywhere in the world may be

eligible for the award. In addition, a number of

plaques will be granted to others who have done important work in the field. The award will be made by the medical committee of the Federa-tion

The first award, a gift of Mrs. Albert D. Lasker, will be known as the Mary Woodward Lasker Prize. The closing date for submission of entries for the

awards is June 1, 1944.

and assistant director of the New York Tuberculosis and Health Association.

Elected to membership in the Tuberculosis Sanatorium Conference were: Dr. John F. Crane and Dr. S. L. Friedman, both of Montesiore Hospital, New York City; Dr. A. Joseph Hughes, director, Tuberculosis Division, New Jersey State Department of Health, Trenton, New Jersey; Dr. Max Kaplan, physician-in-charge, Red Hook Gowanus Health District Tuberculosis Service and assistant in preventive medicine and community health, Long Island College of Medicine; and Dr. Thamara M. Stander, Nassau County Department of Health. Mineola, New York.

#### County News

Albany County

A talk on "Penicillin-Its Background and Therapeutic Uses" was given before the country society at its meeting on January 26. Dr. Charles Frederick Church, of New York City, formerly senior medical officer of the Federal Trade Commission, was the speaker. The discussion was opened by Drs. Raymond F. Kircher, Arthur M. Dickinson,

and William Milner, all of Albany.

Dr. J. B. Horner, president of the county society, has announced the appointment of the following committee chairmen for 1944: woman's auxiliary advisory committee, Dr. E. W. Wilkins; economics, Dr. J. W. Bucci; public and press relations, Dr. W. C. Rausch; maternal welfare, Dr. J.O'C. Kiernan; cancer, Dr. I. J. Murnane; group hospitalization, Dr. K. E. Crounse; industrial health, Dr. W. P. Howard; program, Dr. J. J. Clemmer; public health, Dr. R. J. Erickson; legislation, Dr. O. A. Brenenstuhl; workmen's compensation, Dr. A. M. Dickinson, and war participation, Dr. S. E. Alder-

The following excerpts are from a story which appeared in the Albany Times Union of January 16:

The fight for disabled American veterans, now reaching peak intensity over the country, opened privately in Albany more than twenty years ago through the vigor of a slender, still erect gentleman of 72, Dr. H. Judson Lipes.

Known to thousands of Albanians for his distinguished career as an Army surgeon, Dr. Lipes is recognized by relatively few as one of the first to understand the social and medical problems of returning veterans—and to do something to solve them.

His many medals, now plush-boxed, flash history from the Mexican border to the fields of France; Aisne-Marne, St. Mihiel, the Meuse-Argonne. Pinned against the flush are the Purple Heart, the Silver Star for bravery, and the medal from New York State for conspicuous service.

But sole indication of his two-decade fight for veterans' aid is the commendation from Disabled American Veterans, albany Chapter No. 10, for his recent chairmanship of Forget-Me-Not Day.

Every day, however, has been Forget-Me-Not Day with Dr. Lipes. A ceaseless stream of veterans seeking funds and medical care passes daily through his office. The veterans get funds from the Disabled American Veterans. They get free medical attention from him. Their number is now increasing, their needs even more pressing, says Dr. Lipes.

Created in 1921 "of, by, and for wounded and disabled American veterans of all wars," the Albany chapter has been supported largely through the teamed efforts of Dr. Lipes and his secretary. It has worked as a private philanthropy backed by no War Chest or official organization. Resting entirely upon private contributions made annually to it by generous citizens, the group functions with no red tape nor application complications.

"All the veterans need say to us is that they need our help," developed Dr. Lipes.

October marked theur most successful campaign. "Success was due," said Dr. Lipes, "to the remarkably able assistance of the Junior Red Cross. Through the 130 grils who solicited for us on Forget-Me-Not Day, we realized several times more than we ever had previously. That money is now waiting for any veteran who needs it. Each day brings disbursements to someone.

"People don't recognize the uphill fight veterans have when

ments to someone.

"People don't recognize the uphill fight veterans have when they return home. They critically need someone's help. That's why we have had to build and maintain our Disabled American Veterans.

"The men and women coming back must be provided with some sort of wage that will feed them until they get well, if they've been injured, or tide them over until they manage

"This is what we fought for after the last war. This is what we are now fighting for again."

#### Broome County

Capt. Frank D. Conole, of Binghamton, officer in charge of the medical detail on a Liberty Ship, recently removed a soldier's appendix in an emergency operation aboard the ship in seas so rough that a chair was hurled across the floor of the small dis-pensary during the operation. The incident is re-ported in a story datelined "Somewhere in North Africa," in the December 31 issue of Yank.

Stricken while the Africa-bound vessel was six days out of an eastern United States port, Private Herbert Dewey, of Adrian, Michigan, was given preoperative injections of morphine and atropine and. in spite of the rocking motion of the ship, Captain

Conole performed the operation.

Twelve days after the operation the stitches were removed. A snug-fitting "corset," hand-stitched from sail-canvas by a member of the crew, was donned for abdominal comfort when Private Dewey was allowed out of bed. When the boat docked he walked down the gangplank under his own power.

Captain Conole\* was assisted in the operation by Maj. Rowland Rushmore, of Clinton, Iowa, veter-inarian, and Capt. Walter H. Kwiecten, of Bloom-

field, New Jersey, dental officer.\*

That the passage of the Wagner-Murray Senate bill 1161, calling for socialized medicine, would lay the "foundation for a bureaucracy of fantastic proportions" was the opinion expressed by Dr. H. I. Johnston, former chairman of the legislative committee of the Broome County Medical Society, at a meeting of the Quota Club held in Binghamton on January 12.

"Socialized Medicine" was the topic discussed by Dr. Johnston and Dr. George C. Vogt, present legislative chairman of the society. Dr. Johnston reviewed accomplishments of the medical profession in the last thirty years and said that much was due to individual initiative. In describing the attempts made in Germany, England, and New Zealand to bring the medical profession under government domination, he said that many doctors had refused to cooperate with the plan and that the result was detrimental.

Dr. Vogt said that the public would be the loser if the bill becomes a law because the tax burden would be greater. He also said that the medical profession recognizes the need for a medical indemnity plan for persons whose salaries are not adequate to cover

medical needs.

He said a plan could be worked out if the public could be given a clear understanding of what such legislation as the Wagner-Murray bill would mean. He also said that federal control of medicine would provide a "happy hunting ground" for political job seekers. He contended informed public opinion

<sup>\*</sup> Asterisk indicates that item is from a local newspaper.

Service for tuberculosis and other chest diseases are seen by the Department of Health within a short period after their rejection, Dr. Herbert R. Edwards, Director of the Bureau of Tuberculosis of the Health Department, declared. Approximately one per cent of all the men examined for Selective Service in this area have been found to have lesions characteristic of pulmonary tuberculosis and to be in need of some form of supervision. Through this kind of referral it has been possible to examine many additional thousands of persons who have been in contact with the infected men and may likewise have been infected.

"Perhaps one of the most important findings as a result of this procedure has been the number of cases with healed tuberculosis," Dr. Edwards said.

The experience of the Department of Health with the induction center underscores the importance of mass surveys of industrial workers and all pre-

employment groups, he added.

In discussing "Psychiatric Rehabilitation of the Discharged Service Man," Dr. Thomas A. C. Rennie, assistant professor of psychiatry at Cornell University Medical College, indicated that in New York City 90,000 men had been rejected for psychiatric disabilities and 20,000 men had been discharged for the same reasons. "The problem in the country at large is staggering and is steadily growing," Dr. Rennie said. "With 70,000 men being discharged each month from the armed services, onethird or approximately 25,000 are likely to be psychiatric disabilities."

The results obtained from psychiatric treatment of such men are encouraging, Dr. Rennie said, and "indicate the need for establishment of psychiatric centers or clinics for men of this group where they may secure help."

Reporting on the work of the Rehabilitation Clinic of the New York Hospital, which opened August 19, 1943, Dr. Rennie said that 150 men, most of them discharged from the armed services, had been registered. They represent a cross section of psychiatric disorders ranging from acute schizophrenic illnesses and depressions to psychoneuroses. The majority fall into the latter group, he indicated,

anxiety neuroses being most common. "The results of treatment have been most en-couraging," Dr. Rennie declared. "More than half these men show definite improvement. Many have recovered entirely. The treatment period is far briefer than that required for the ordinary civilian neurotic. With help, many of these acute conditions subside rapidly. Sometimes a single interview is sufficient to orient a man so that he accomplishes his recovery spontaneously."

The fourth speaker, Dr. Raymond S. Roy, of the Orthopaedic Service of the United States Marine Hospital at Staten Island, discussed "Physical Re-construction in Wartime Surgery." He substituted for Dr. Arthur A. Michele, Chief of the Orthopaedic

Service, who was ill.

Dr. Roy's talk was illustrated by lantern slides.

Seventh Postgraduate Course in Ocular Surgery, Pathology, and Orthoptics

THE George Washington University School of Medicine in Washington, D.C., has announced the seventh annual postgraduate course in ocular surgery, pathology, and orthoptics, which is to be held from Monday, April 24, to Saturday, April 29,

1944, inclusive.

The course in pathology embraces the normal histology of the eye, inflammations, general and specific, phthisis bulbi, glaucoma, cataract, arteriosclerosis, albuminuric retinitis, and intraocular and epibulbar tumors. The instructors are Col. J. E. Ash, (MC), AUS., curator of the Army Medical Museum, Maj. Alfred Golden, (MC), AUS., Helenor Wilder, and Lawrence Ambrogi. It will take place at the Army Medical Museum, 9:00 a.m. to 12:00 m. Monday through Friday, April 24-28, 1944. Transportation to the museum has been arranged.

The orthoptics course covers practical orthoptics, with case demonstrations. The instructors are Dr. William Thornwall Davis, Dr. Ernest Sheppard, Dr. Frank D. Costenbader, Louisa Wells, Mary E. Kramer, Dorothy R. Bair, and Mildred Brown. The meeting place is the George Washington United States of the Coordinate o versity School of Medicine; the time is from 1:15 to 3:15 P.M. Monday through Friday, and Saturday

morning from 9:00 A.M. to 12:00 M.

This course will be completed Saturday noon.

The pathology and surgery courses will be completed on Friday afternoon. As heretofore, the interesting and valuable round-table discussion on surgery and orthoptics will be held at 11:15 A.M. on Saturday,

April 29.

In the surgery course the registrants will operate on animal eyes under the direction of the instruc-tors, Dr. W. T. Davis, Dr. Ernest Sheppard, Dr. E. Leonard Goodman, Dr. Ronald A. Cox, Dr. Sterling Bockoven, Dr. Richard W. Wilkinson, and Dr. C. R. Naples. The following operations will be performed: combined intracapsular cataract ex-trection. Ellipt's salargament traphine, evolodialytraction, Elliot's sclerocorneal trephine, cyclodialysis, LaGrange, iridectomy, iridotasis, iridencleisis, Jameson resection, Reese resection, Worth advancement, and O'Connor cinch. The instruction will be held at the George Washington University School of Medicine from 3:20 to 5:30 P.M. Monday through Friday, April 24 through April 28.

The registration will be held at the School of Medicine, 1335 H Street, Northwest, on Monday, April 24, from 7:45 to 8:30 A.M. The Washington Hotel has reserved rooms for the registrants; make

your registration early.

For further information apply to the secretary, Miss Louisa Wells, 927 17th Street, N.W., Washington, D.C.

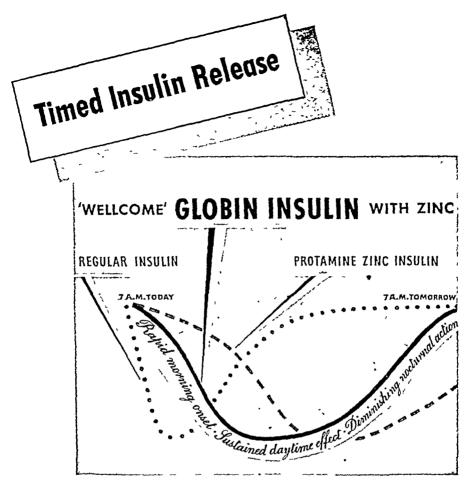
### Tuberculosis Conference Re-Elects Runnells

DR. JOHN E. RUNNELLS, superintendent and medical director of Bonnie Burn Sanatorium, medical director of Bonnie Burn Sanatorium, Scotch Plains, New Jersey, and consultant of Elizabeth General Hospital, Elizabeth, New Jersey, and Muhlenberg Hospital, Plainfield, New Jersey, was re-elected chairman of the Tuberculosis Sanatorium Conference of Metropolitan New York at its annual meeting held on February 2 at the Hotel Pennsylvania in New York City, in conjunction with the Annual Conference of the New York Tuberculosis

and Health Association.

Dr. James C. Walsh, medical director and superintendent, Nassau County Sanatorium, Farming-dale, L.I., was re-elected vice-chairman.

Also re-elected as secretary and consulting statistician of the conference, respectively, were Bernard S. Coleman, secretary of the Tubercu-losis Division, and Godias J. Drolet, statistician



A schematic representation of the effects of various insulins on the blood sugar of a fasting diabetic.

• 'Wellcome' Globin Insulin with Zinc, a new type of insulin, provides more efficient timing of action. Its rate of insulin release is such that its prompt effect meets the morning requirements; strong prolonged daytime action coincides with the period of peak need; and diminishing action during the night minimizes the possibility of nocturnal insulin reactions.

'Wellcome' Globin Insulin with Zinc conforms to the needs of the patient. A single injection daily has been found to control satisfactorily many moderately severe and severe cases of diabetes.

'Wellcome' Globin Insulin with Zinc, a clear solution, is comparable to regular insulin in its freedom from allergenic skin reactions.

'Wellcome' Globin Insulin with Zinc was developed in the Wellcome Research Laboratories, Tuckahoe, New York. Registered U. S. Patent Office, No. 2,161,198. Available in vials of 10 cc., 80 units in 1 cc. 'Wellcome' Trademark Registered



Literature on request



could mold a sensible and workable medical indemnity plan.\*

#### Chemung County

Appointment of Dr. William R. Phillips, of Elmira, as chairman of the Chemung County War ('ouncil's emergency medical service has been announced. He succeeds Dr. George R. Murphy and Dr. Earl D. Smith, who have resigned as cochair-

Dr. Phillips assisted Drs. Murphy and Smith for several months.\*

#### Erie County

A clinical meeting for physicians, as part of the Social Hygiene Week activities, arranged through the joint sponsorship of the Buffalo Syphilis Control Service and the Medical Society of the County of Erie, was held on February 3 at City Hall in Buffalo.

The program included a demonstration of U.S.P. II. S. Kodachrome slides on venereal disease lesions, with Dr. Earl D. Osborne as commentator; a demonstration of models of venereal disease lesions, prepared by Dr. Charles Bethune; and a presentation of current problems in venereal disease control by Dr. I. Jay Brightman.

#### Franklin County

Dr. Percival F. Dalphin, 76, dean of Malone physicians, completed fifty years of practice in Malone on January 3. He is in good health and is assisting in the third war during his lifetime. He is a veteran of the Spanish-American War and served for several months in the South in World War I.

Although unable to enter active military service in this war, he is relieving younger physicians by carrying on a busy practice in Malone and the sur-

rounding territory.

Dr. Dalphin was born in Richfield and received his degree at the Bellevue Hospital Medical College March 30, 1891. In November, 1891, he started a practice in Trout River, serving the small town and the large farming community on both sides of the international border. He went to Malone in 1894.\*

#### Jefferson County

The publication of a bulletin has been initiated by the county society. It will contain articles published or prepared by members of the society and will incorporate various departments, such as hobbies, letters from the men in service, case histories, propaganda for the furtherance of medicine, and medical relations.

Those interested in submitting original articles or material which could be used in one of the departments should communicate with Dr. Charles A. Prudhon, secretary, and submit the material before

April 1.

The regular monthly meeting of the county society was held on January 13 at the Black River Valley Club in Watertown. Following dinner at 6:30, Dr. S. E. Simpson, superintendent of the Jefferson County Sanatorium, discussed "Interesting Problems in Chest Diseases."\*

#### Kings County

The county society and the Academy of Medicine of Brooklyn held a stated meeting on the evening of January 18 in MacNaughton Auditorium, at which time the members heard two addresses. Dr. Lee S.

Schwartz, president, delivered his inaugural address, entitled "The Doctor and His Future." "The Postwar Malaria Problem in the United States" was discussed by Dr. Isadore Snapper, former professor of internal medicine at the University of Amsterdam, Holland, and professor and chief of the department of medicine at Peiping Medical College, Peiping, China.

A medal and scroll were presented to the retiring

president, Dr. John J. Gainey.

Conferences on obstetrics, sponsored by the Committee on Maternal Welfare, will continue through May. They are held at 4:30 P.M. in MacNaughton Auditorium on the fourth Tuesday of each month.

Approval of medical and health insurance plans asteps to "increase the efficiency" of medicine was indicated by Dr. Jean Alonzo Curran, president and dean of the Long Island College of Medicine, in an address at the college's eighty-fifth annual commencement held on December 30 in the Academy of Music.

Speaking before 91 graduates, 45 of whom received commissions as second lieutenants in the medical corps, Dr. Curran said that "the trend to place the resources of a group at the disposal of the individual patient" gives much promise of increasing the efficiency of the profession.

"The present growing interest in plans for pre-payment of medical care," he said, "will doubtless encourage more group practice and thus better cooperation in the use of medical resources."

Following Dr. Curran, the traditional commencement address was given by the Right Rev. J. I. Blair Larned, Suffragan Bishop of the Protestant Philosoppel Philosop Episcopal Diocese of Long Island. Rabbi Sidney S. Tedesche of Union Temple gave the benediction and the invocation and Dr. H. Sheridan Baketel, emeritus professor of preventive medicine, adminitered the Hippocratic oath.

Capt. Robert J. Geis, commandant of the college A.S.T.P, unit, presented the commissions to the army doctors and administered the oath of office. Capt. John K. Richards, commanding officer of the USNR Midshipmen's School, presented commissions to 24 navy trainees. Eight of the graduates

Dr. Curran also announced twelve faculty promotions and two new appointments. They are Dr. Howard W Potter to professor of clinical psychiatry. Dr. Edwig P. Morround to professor of clinical try, Dr. Edwin P. Maynard to professor of clinical medicine, Dr. George E. Anderson to clinical professor of medicine, Dr. Walter A. Coakley to clinical professor of plastic and maxillofacial surgery, Dr. George H. Paff to associate professor of anatomy, Dr. John M. Pierce to associate professor of pathology, Dr. Dorothy Loomis to assistant professor of pathology, Dr. George Samuelsen to assistant professor of chemistry, Dr. C. T. Chiaramonte to assistant alignment of the control of the contr sistant clinical professor of dermatology and syphilology, Dr. Arthur E. Lamb to assistant clinical professor of medicine, Dr. A. W. Martin Marino to assistant clinical professor of medicine, Dr. A. W. Martin Marino to assistant clinical professor of surgery, Dr. Ainc worth L. Smith to assistant clinical professor of surgery, and Dr. Thomas D. Dublin to professor and executive head to the Department of Preventive Medicine and Community Health.\*

[Continued on page 18]

# THERAPEUTIC TEAMWORK

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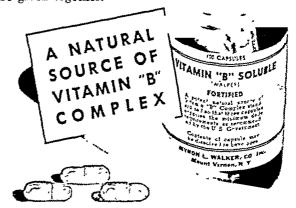
Research has shown that vitamins B and C appear to work as a team in effecting beneficial changes in cellular physiology. This was clinically manifested by improvement in pathology of the upper respiratory mucosa and the retina when the two vitamins were given together.

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Write Dept. 2 for samples and literature.

THE DRUG PRODUCTS CO. INC.

Long Island City 1, New York

## THEODIGITAL

**Pulyoids** 

#### [Continued from page 416]

More than two hundred borough doctors crowded the Jewish Hospital's Louria Auditorium on January 10 to watch a demonstration of the wizardry of the Soviet's medical men.

The occasion was a meeting of the Brooklyn Chapter of the American-Soviet Medical Society, at which was shown a new Russian moving picture on nerve transplantation by the Soviet medical scientist, Professor Nikolai N. Burdenko. The film showed the actual operation and transplantation of nerves to restore movement to the limbs of soldiers apparently hopelessly paralyzed by war wounds.

Dr. William Malisoff, professor of biochemistry at Brooklyn Polytechnic Institute, discussed public health in Russia and traced the progress of medical

science there.

Dr. Leo M. Davidoff of the Hospital and Dr. Abraham Stone, national secretary of the society, also spoke.

#### Nassau County

The regular monthly meeting of the county society was held in Mercy Hospital Auditorium in Rockville Centre on the evening of January 25.

The feature of the scientific session was a symposium presented by Justice Henry G. Wenzel, Jr., of the Supreme Court of New York, Jamaica, and Theodore J. Curphey, M.D., Medical Examiner of Nassau County. Justice Wenzel spoke on "The Bench Looks at Medicine," and Dr. Curphey's talk was entitled "Medicine Looks at Law."

#### New York County

The address of the retiring president, Dr. J. Stanley Kenney, and the address of the incoming president, Dr. Conrad Berens, opened the program of the monthly meeting of the county society held on January 25 at 8:15 P.M. at the New York Academy of Medicine. The guest speaker was Maj. Gen. David N. W. Grant, U.S. Army Air Surgeon, of Washington, who gave a talk on "Medical Services of the Army Air Forces."

A film on the Battle of Britain was shown, by courtesy of the U.S. Naval Training Aids Library.

President Berens listed fourteen items to which the

county society plans to devote its energies:

1. Establishing a unified system of medical care for the low- and moderate-income classes of this City, including diagnostic and preventive as well as therapeutic services.

2. Participation in the development of plans for the equitable distribution of physicians throughout

the country.

Thorough study of the educational require-

ments for medical licensure.

4. Continued study and implementing of voluntary plans for improving the quality and distribution of medical care and adjusting its costs to the needs of the time.

5. Continued study of the relationship of the medical profession to the Federal government and

the state agencies.

6. Education and ethical control of nonmedical personnel associated with all branches of medicine.

7. The education, hospital training, practice, and certification of Negro physicians.

The development of adequate hospital facili-

ties where needed.

9. Study of conditions which interfere with the practice of medicine to the detriment of public health.

10. Study of methods of improving and furthering medical education and the exchange of medical ideas and methods, both in the United States and in other countries.

Leadership and closer cooperation with government, industry, commerce, labor, and social agencies for the expansion and improvement of in-

dustrial medical service.

12. Establishment of a concrete plan for the postwar professional rehabilitation of New York

County physicians returning from service.

13. Thorough housecleaning in the field of workmen's compensation and elsewhere to eliminate undesirable professional practices and investigation of the conditions that have produced these practices with a view to preventing their recurrence.

14. Establishment of adequate public relations with a view to better public understanding of the aims and accomplishments of American medicine

and of our society.

Dr. Robert A. Cooke was presented with a gold medal for outstanding contributions to clinical allergy at the sixth annual forum on allergy, held at St. Louis, Missouri, January 22-23. Dr. Cooke delivered the fourth annual forum lecture, on "Observations on Allergic Reaction."

The New York Physicians Association has announced its newly elected officers for 1944 as follows: Elihu Katz, president; Joseph Morse, president-elect; Jacob Buckstein, first vice-president; Rubin Gerber, second vice-president. Samuel Hochman will officiate as recording secretary; Arthur J. Greenberger, as secretary; and Joseph Jonas, as treasurer.

The Society of the Alumni of the College of Physicians and Surgeons, Columbia University, has elected the following officers for the coming year: trustees, William Crawford White, Martin DeForest Smith, Carl Eggers; president, John H. Keating, vice-president, Bernard S. Oppenheimer; secretary, Charles C. Lieb; treasurer, James A. Corscaden; historian, T. Lloyd Tyson; librarian, Martin De Forset Smith

De Forest Smith.

Drs. John H. Morrissey and E. A. Rovenstine
will represent their respective sections—urology
will represent their respective sections—urology and anesthesiology-in the scientific exhibit of the 1944 session of the American Medical Association, to

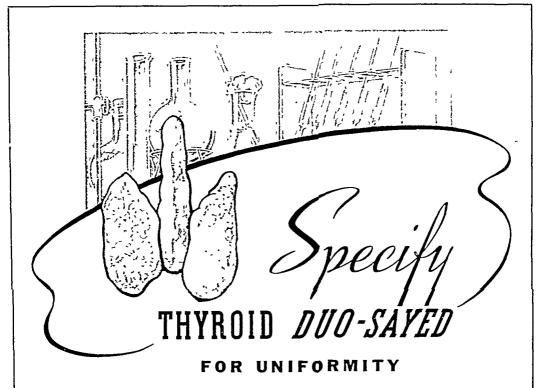
be held in Chicago next June.

The annual Duncan Bulkley lecture of the New York Academy of Medicine was given on January 21 by Dr. George T. Pack on the subject of "Cancer of the Stomach" the Stomach.

The New York Diabetes Association has announced an open meeting to be held on Saturday, February 19, at 8:30 P.M. at the New York Acad-

emy of Medicine. Dr. George E. Anderson, chairman of the committee on internal medicine, will preside over the following program: "Normal Standard in the

[Continued on page 420]



Potency and uniformity are assured when you prescribe Thyroid *Duo-Sayed*, because this preparation is assayed by two distinct methods—

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- {2} British Pharmacopoeia Method (Thyroxin content)

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[Continued from page 418]

Treatment of Young Diabetics," by Dr. Joseph H. Barach, of Pittsburgh, Pennsylvania; "Report on the Philadelphia Diabetes Survey," by Dr. Joseph T. Beardwood, of Philadelphia; and a round-table discussion on diabetes in which the participants will be Drs. Cecil Striker, of Cincinnati, Ohio; Seale Harris, of Birmingham, Alabama; J. West Mitchell, of Pittsburgh, Pennsylvania; Elliott P. Joslin, of Boston; Howard F. Root, of Boston; and Edward S. Dillon, of Philadelphia.

All physicans and medical students are invited to attend this meeting.

#### Ontario County

The first quarterly meeting for 1944 of the county society was held on January 11, at the Canandaigua

Hotel, Canandaigua.

The program for the meeting consisted of a business session at 5:00 p.m., dinner at 6:30 p.m., and a scientific session at 7:30 p.m. Features of the scientific session were a paper entitled, "Report of a Case of Hemolytic Streptococcus Pneumonia Treated with Penicillin," by Dr. P. V. Newland, of the Clifton Springs Sanitarium and Clinic; and a paper on "The Physician's Role in the Home and Farm Accident Control Program," by Dr. J. G. Fred Hiss, of Syracuse.

The next meeting of the society is scheduled for

April 11.

#### Rensselaer County

Dr. Thomas M. Aldrich has resumed practice in Rensselaer after receiving a medical discharge from the Army Medical Corps, in which he served the last year and a half.\*

#### Schenectady County

The regular monthly meeting of the county so-

ciety was held in the Ellis Hospital Library in

Schenectady on February 1.

The subject of the scientific session was "Intrathoracic Tumors and Lymphatic Disease in the Young," and the speaker was Dr. Lloyd Craver, attending physician at Memorial Hospital in New York City and assistant professor of clinical medicine at Cornell University Medical School.

#### Seneca County

Dr. R. Plato Schwartz, associate professor of orthopaedic surgery at the University of Rochester, was a guest speaker before the Seneca School Parent-Teacher Association on January 7.

"Infantile Paralysis: Its Present Status" was discussed by Dr. Schwartz, with the assistance of two research associates, Dr. Harry D. Bouman and Arthur Heath. Dr. Bouman told of some of his

experiments and Mr. Heath showed movies of in-

fantile paralysis treatment.

Dr. Schwartz is a member of the American Medical Association, the American Academy of Orthopaedic Surgery, the American Orthopaedic Society, the Rochester Academy of Medicine, and the Mon-roe County Medical Society, as well as the author and coauthor of a number of articles and books on orthopaedics.

Teachers and mothers of kindergarten pupils

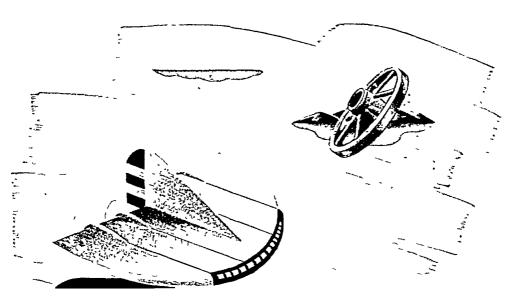
were hostesses.\*

#### Wyoming County

For the fifty-eighth consecutive year members of the Wyoming County Medical Association met on January 13 as guests of Dr. Mary Greene in Castile Sanitarium for luncheon and discussion of medical topics.\*

Note: A list of county society officers for 1944 appears on page 422.

	Dea	ths of New York State Physi	icians	- lance
Name	Age	Medical School	Date of Death December 29	Residence Oriskany
Bion P. Allen Alfred Cahn Louis P. Dosh Luke Fleming James T. Gorton Clarence A. Holmes Philip D. Kerrison James W. King Henry W. Lattin Georgianna S. Loffredo Morris Manges Daniel W. O'Brien Clifford B. Rowell Sherwood D. Sawyer John W. Stokes Samuel Topkins	77 64 63 74 67 64 72 87 83 85 78 55 75 65 65	Pennsylvania Freiburg Cornell Bellevue Cornell P. & S., N.Y. South Carolina; N.Y. Univ. Albany Buffalo N.Y. Ecl. P.& S., N.Y. Loyola Detroit; Buffalo Baltimore Jefferson Vermont	January 17 January 16 January 23 January 23 January 27 January 24 January 11 December 22 December 27 January 26 January 24 December 31 January 11 January 12 December 28	Mannsville Elmsford Tarrytown Yonkers Bronx Manhattan Willsboro Albion Jamestown Manhattan Brooklyn Buffalo Hilton Southold Brooklyn



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## Officers—County Medical Societies—1944

### TOTAL MEMBERSHIP AS OF FEBRUARY 1, 1944—18,846

County	President	Secretary	Treasurer
Albany	J. B. HornerAlbany	H. L. NelmsAlbany	F. E. Vosburgh
Bronx	J. F. Glosser Wellsville F. W. WilliamsBronx	G R Gilmore Brons	L D. Grey
Broome	F. G. Moore Endicott	J. C. Zillhardt Binghamtor	ı L. J. FlanaganBingl
Cattaraugus	J A Taggert Salamanca	W. R. Ames Olear	) W. R. Ames
Cayuga	H S Bull Auburn	L. W. Sincerbeaux Auburr	I. H. Rothschild
Chautauqua	O. T. BarberFredonia	E. Bieber Dunkirl	C. E. Hallenbeck
Chemung	R. S. Howland Elmira E. F. Gibson Norwich	J. H. Burke, Jr Elmira	I F. M. Buller
Chenango Clinton	P. B. BartonPlattsburg	T A Rogers Plattshurg	T A RogersPla
Columbia	C I Cohulte Philmont	I. I Forly Hudson	l. l Early
Cortland	R. P. CarpenterCortland	W. A. WallCortland	F. F. SornbergerC
Delaware	R. P. CarpenterCortland P. J. HustHamden	F. R. BatesWaltor	F. R. Bates
Dutchess	H. A. LaBurt Queens Village	A. A. Rosenberg. Poughkeepsie	R M DeGraff
Erie	J. D. NaplesBuffalo G. L. KnappTiconderoga	I H: Glaszin Port Henry	' I. P. UIRVIII
Essex Franklin			
Fulton			
Genesee			
Greene			
Herkimer	D. F. Aloisio Herkimer	C A Dwidton Wetertown	L. E. HendersonWat
Jefferson Kings	L. S. SchwartzBrooklyn	B. M. BernsteinBrooklyn	I. E. SirisBr
Lewis	L. S. SchwartzBrooklyn D. J. O'ConnorCroghan G. J. DoolittleSonyea	H. E. ChapinLowville	H. E. Chapin
Livingston	G. J. DoolittleSonyea	F. J. Hamilton Hemlock	C S Piyley Car
Madison	A. S. BrogaOneida	C C Talaman Dochostor	I I. NorrisRo
Monroe Montgomery	C. A. SpenceAmsterdam	S. PartykaAmsterdam	M. T. Woodhead Ams
Nassau	C. A. SpenceAmsterdam N. H. RobinHempstead	E. K. Horton. Rockville Centre	E. K. Horton. Rockville
New York	N. H. Robin Hempstead C. Berens New York	B. W. HamiltonNew York	G. C. Stoll Niagar
Niagara	G. Guillemont Magara rans	O. T. M. T. T. Tringate Tition	H D MacFarland
Oneida	F. M. Miller, Jr Utica D. V. Needham Syracuse	F. N. Marty Syracuse	I. L. ErshlerSj
Onondaga Ontario	D. V. NeedhamSyracuse J. W. Howard. East Bloomfield	D. A. EiselineShortsville	D. A. Eiseline Ner
Orange	W. I. Neller Middle town	D. C. Waletbury Xton Sungar	7 Th-man
Orleans	J. S. Roach	J. Dugan	M W Kogon
Oswego	H. J. La Tulip Oswego L. S. House Oneonta	M. F. MurrayCooperstown	P. von Haeseler. Glibe.
Otsego Putnam	L. S. House Oneonta A. Vanderburgh Brewster	G. H. Steacy. Lake Mahopac	A A Fischl Long Islan
Queens	W I Brev Ir POIESUIIIIS	13. 21. 11 0111	T T T
Rensselaer	R. P. Doody	Tt. II. Midsey Ct. Coores	C. I. BeckerDir.
Richmond	D. V. Catalano . West Brighton H. S. Heller Spring Valley	R. L. YeagerPomona	M. R. Hopper
Rockland St. Lawrence.			
Saratoga			
	C. F. RourkeSchenectady	N H RustScotia	A. S. Grussner Schen
Schenectady Schoharie			
Schonarie Schuvler			
Seneca			
· Steuben	E. H. Ober Panted 1050	E P Kolh Holtsville	G. A. SillimanL
Suffolk		D. S. PayneLiberty	D. S. Payne
Sullivan Tioga	H. L. Knapp, Jr	D. S. PayneLiberty I. N. PetersonOwego	1, 14, 1 000200
110641111111	Newark Valley	W. Wilson	W. Wilson Kill
Tompkins	J. N. FrostIthaca Thomas F. Crowley. Kingston	C. L. GannonKingston	C. B. Van Gaasbeek Glens
Warren	B Diefendorf Glens Falls	C. L. Gannon Kingston L. C. Huested Glens Falls D. M. Vickers Cambridge	C. A. PrescottHudsor
Washington	5 D D	II W. VICKEISGazza	
_	R. E. Borrowman. Fort Edward R. Sheldon. Lyons M. E. Marsland. Memaroneck	T. C. HobbieSodus	T. C. Hobbie
Wayne	M. E. Marsland	H. E. McGarvey Bronxville	W. A. Henramant.
Westchester	Mamaroneck	G W Nairn Warsaw	G. W. Nairn
Wyoming	M. E. Marsland Mamaroneck G. S. Baker Castile A. W. Holmes Penn Yan	R. F. LewisPenn Yan	R. F. Lewis
Yates	A. W. Holmes 1 end 1 an	<del></del>	



Manufacturing Chemists



YONKERS 2, New York

## Medical Legislation

Bulletin No. 2 Issued by the Legislative Bureau of the Medical Society of the State of New York, January 20, 1944

THE annual conference of county society legislative chairmen will be held at the Ten Eyck Hotel in Albany on Thursday, February 24.

The Senate has announced its committees and the personnel of those with which we have dealings is

listed in this bulletin.

The American Medical Association has issued a recent bulletin, No. 29, from which we make the

following excerpts:

'Selective Training and Service Act Amendment: S. 763 has been passed in the Senate and House and has been approved by the President as Public Law No. 197, an act amending the Selective Training

and Service Act of 1940.

"Comment. This law, among other things, directs the President to appoint a commission of five qualified physicians, one an Army officer, one a Navy officer, and three civilian physicians not employed by the Federal Government, to examine the physical, mental, and moral qualifica-tion requirements for admission to the Army, Navy, and Marine Corps and to recommend to the President any changes therein which the commission believes can be made without impairing the efficiency of the armed services. The Director of Selective Service will be required to re-examine rejectees, including those previously discharged from the armed services because of physical disability, to determine if they may qualify under any new standards that may be established. The new law provides, too, that no individuals shall be called for induction, ordered to report to induction stations, or be inducted because of their occupations, or by occupational groups, or by groups in any plant or institutions, except pursuant to a requisition by the land or naval forces for persons in needed medical professional and specialist categories.

"Permanent Medical Service in Veterans' Administration: H. R. 3623, introduced by Representative Rogers, Massachusetts, a bill to insure adequate care of disabled veterans by establishment of a permanent medical service in the Veterans' Administration. Pending in the House Committee on World

War Veterans' Legislation. "Comment. Under th "Comment. Under the provisions of this bill, the Administrator of Veterans' Affairs will be directed to establish in the Veterans' Administration a permanent medical corps to be known as the Veterans' Administration Medical Corps, which will constitute a component part of the military forces of the United States. This bill, apparently, was introduced as a substitute for a previous bill introduced by Representative Rogers, H. R. 2820, which was analyzed in FLB-28, under date of July 15, on page 8.

"Additional Hospital Facilities for Veterans: Under date of September 18, the President submitted to Congress a supplemental estimate of appropriation for the Veterans' Administration, for the fiscal year 1944, in the amount of \$10,356,000. This additional appropriation was for the purpose of providing 3,950 beds for neuropsychiatric patients at thirteen existing facilities of the Veterans' Administration. The House Committee on Appropriations included the requested amount in the First Supplemental National Defense Appropriation Act, 1944 (H. R. 3598). This bill has now become a law. The House Committee in approving the requested

appropriation stated:
"The estimate of \$10,356,000 for construction of additional bed capacity for neuropsychiatric patients is approved without change. The program contemplates the addition of 3,950 beds through enlargement of present facilities at twelve existing veterans' hospitals listed on page 64 of the hearings. While these facilities will not be ready for occupancy for about a year, the incoming load of patients from World War II indicates that they should now be started. As a temporary measure to care for patients of this type, an additional 3,844 beds in existing facilities are being provided through the contraction of small particular and small provided through the contraction of small particular and small particular traction of space.

"Patients admitted to veterans' hospitals as veterans of World War II already total 7,149 and the number is increasing rapidly, a total of 1,476 coming from the armed forces in the month of July. A classification of the total of 7,149 by months commencing in March, 1942 and divided between neumencing in March, 1942, and divided between neuropsychiatric, tubercular, and general cases, is listed on page 69 of the hearing. These data are cumulative to the ord of last Assemble and show that 1550. tive to the end of last August and show that 1,550, or 22 per cent, are tubercular cases; 1,945, or 27 per cent, are general cases; and 3,650, or 51 per cent,

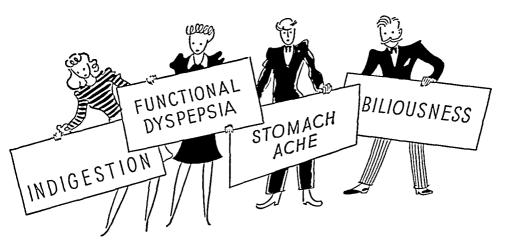
are neuropsychiatric cases.
"It is evident that additional construction will be required from time to time for hospitalization of World War II veterans. The expanding load of veterans of both wars is being given continuous study by the Federal Board for Hospitalization with a view to future construction, having in mind the many beds in service hospitals which may be surplus to the needs of those agencies at the conclusion of the war and bearing in mind the fact that certain of those recently constructed facilities are being designed for postwar use by the Veterans' Administration.' (H. Rept. No. 822, 78th Congress)

"Social Security for Employees of Religious, Charitable, Educational, and Certain Other Organizations: H. R. 3204, introduced by Representative Lynch, New York, a bill to establish and provide for a system of old-age and survivors' insurance for employees of religious, charitable, educational, and certain other organizations. Pending in the House Com-

other organizations. rending in the House conmittee on Ways and Means.

"Comment. This bill proposes to add a new title to the Social Security Act, Title II-A, to be designated 'Federal Old-Age and Survivors' Indesignated 'Federal Old-Age and 'Federal surance for Employees of Religious, Charitable, Educational, and Certain Other Organizations.
Title II of the present act is the section under which federal old-age and survivors' insurance where the company of the company to the comp benefits are made available to present beneficiaries. Benefits to which the employees of organizations now exempt will be entitled under the proposed new Title II-A will be identical with the benefits to which other employees are now entitled under the existing Title II. While the existing provisions of the Social Security Act imposes

[Continued on page 426]



# "Don't rely too much on labels, For too often they are fables"

-Spurgeon, C. H.

Vague symptoms, particularly in the early stages of diseases of the extrahepatic biliary tract, frequently mask the true condition, and delay much needed therapy.

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## CHOLAN DH

NOT CHOLAGOGIC, NOR CHOLERETIC-BUT HYDROCHOLERETIC

[Continued from page 424]

taxes on employers and employees, the proposed Title II-A contemplates that payments to be made by the exempt organizations and by their employees to the trust fund to be created will be premiums, not taxes.

"Additional Funds for Nurse Training Program: The President, under date of September 29, transmitted to Congress a supplemental estimate of appropriation for the Federal Security Agency for the fiscal year 1944, amounting to \$10,000,000 to be available for carrying on the nurses' training program, authorized by the Bolton Act, for the period January 1 to March 31, 1944. The House Committee on Appropriations gave its approval to \$7,500,000 of the estimate and included that amount in H. R. 3598, the First Supplemental National Defense Appropriation Act, 1944, which has now become a law. In its report on H. R. 3598, the

committee said in part:

"'Approval is given to \$7,500,000 of a budget estimate of \$10,000,000 for training of nurses under the act of June 15, 1943 (Bolton Act). The initial appropriation for this purpose for the fiscal year 1944 was made in the sum of \$45,000,000 in the act of July 12, 1943, toward an entirely new Federal program designed to provide an adequate supply of nurses for the war period. The law provides Federal grants for nurses' training to cover tuition, maintenance, uniforms, and a small stipend to the nurse during the period of the course. At the time the \$45,000,000 was allowed, Congress was advised that the cost for the entire fiscal year would approximate \$65,000,000, and this latter figure has been restated to the committee in the accompanying hearings as still being the estimated total for the year. There have been variables in the program as originally estimated. The number of nurses has not yet reached the number originally estimated and the estimated per capita cost of the 36-month course for student nurses has been revised from the original \$1,250 to \$1,685 per nurse.
"'As of the date of the hearings (October 12)

there were 1,255 nursing schools eligible to give this training and of these 1,003 had applied for approval to give it and 869 had been approved to give it. On the basis of the allotments made from the \$45,000,-000, as of the date of the hearing, approximately 84,000 cadet nurses would receive training, of which 41,000 are new cadet nurses, while the goal for the

year is 65,000 new student nurses for the year.
"The program of \$65,000,000 for the fiscal year depends upon the number of students to enroll for the training. This program, if it materializes, would require \$20,000,000 additional for this fiscal year instead of the \$7,500,000 allowed in the bill. committee feels that at the present rate of recruitment it does not appear likely that the anticipated

enrollment will be attained. It will be necessary to review the program again early in the coming session, and if additional funds are needed they must be provided.' (H. Rept. No. 822, 78th Congress)"

Committee on Legislation JOSEPH S. LAWRENCE Executive Officer

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L. Joseph
Carl Pack
G. H. Pierce
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C. J. Marasco
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#### Senate Committee on Insurance

W. H. Hampton, Chairman E. S. Warner P. W. Williamson W. J. Mahoney W. F. Condon F. R. Coudert	L. Baum S. J. Wojkowiak L. Joseph Carl Pack C. D. Perry J. B. Erway
F. R. Coudert I. B. Mitchell	J. B. Erway S. L. Greenberg
n. D. Mitchell R. S. Bainbridge	D. 21 -11

#### Senate Committee on Public Health

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#### Senate Committee on Labor and Industry

W. F. Condon, Chairman	G. F. Wallace
A. H. Wicks	R. A. DiConstanzo
W. W. Stokes	E. J. Coughlin
Mrs. R. F. Grayes	W. Kirnan
	W. Kirnan J. V. Downey

#### Senate Committee on Public Relief and Welfare

H. W. Griffith, Chairman C. C. Hastings A. H. Wicks Mrs. R. F. Graves W. F. Condon W. Bewley	L. Baum R. A. DiConstanzo Carl Pack C. D. Perry W. Kirnan L. B. Heller
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## Bulletin No. 3 Issued by the Legislative Bureau of the Medical Society of the State of New York, January 26, 1944

REMEMBER the date for the annual conference of county society legislative chairmen is February 24 at the Ten Eyck Hotel, Albany.

We reported no new bills in Bulletin No. 2; our space was limited. This list brings you up-to-date.

We mentioned before the bulletins that the Council on Medical Service and Public Relations will issue. These will be sent directly to you from the American Medical Association in Chicago or

through our New York office. Each county so-

ciety legislative committee should consider itself a subcommittee of the Council and comments that you may have regarding the material in the bulletins should be sent to us at the Albany office and we shall see that it is promptly forwarded to the Council headquarters in Chicago.

#### New Bills Introduced

Senate Int. 191-Wallace; Assembly Int. 337-[Continued on page 428]

# EFFECTIVE Ambulant THERAPY

Kamadrox fulfills the three demands of the patient in pepticulcer, gastritis, and gastric hyperacidity: It stops the characteristic pain promptly-keeps the patient ambulatory - permits lesions to proceed to healing. • Kamadrox -composed of magnesium trisilicate (50%), aluminum hydroxide (25%), and colloidal kaolin (25%) -provides promptly effective, profound, and prolonged acid neutralizing power; systematically inert, it cannot lead to alkalosis or acid rebound; it is astringent, demulcent, adsorbent, protective; it exerts no influence on intestinal motility, proves neither laxant nor constipating. Its pleasant taste promptly gains patient cooperation.



# KAMADROX



Kamadrox powder, permitting adjustment in dosage, is supplied in 4-oz. and 1-lb. cans. Kamadrox tablets in bottles of 100 and multiples. Each tablet contains:

Magnesium trisilicate \_\_\_\_\_\_4 grains
Aluminum hydroxide \_\_\_\_\_2 grains
Colloidal kaolin \_\_\_\_\_2 grains

Dose, 1 or 2 tsp. of the powder, well dispersed in water, t.i.d., p.c. Of the tablets, 2 with water, t.i.d. or q.i.d.

## THE S. E. MASSENGILL COMPANY Bristol, Tenn.-Va.

NEW YORK . SAN FRANCISCO . KANSAS CITY



#### [Continued from page 426]

Breed, defines as an occupational disease, for workmen's compensation purposes, deafness caused by occupation subjecting employees to noises, jarring, shaking, or concussion. Referred to the Labor Committees.

Senate Int. 252—Wicks; Assembly Int. 385— Stephens, authorizes the Education Department to lease to any state teachers' college alumni association a portion of the grounds for dormitories; increases the salary of college presidents; provides for a college physician and nurse, fixing salaries and increments; permits the education commissioner to transfer faculty members and employees from one state college to another, and continues extension industrial teacher training courses. Referred to the Education Committee in the Senate and the Ways and Means Committee in the Assembly.

Comment: This is sent you for information. It provides that teachers' colleges may employ physicians and nurses on full time whose duties will be to render medical service to the students and, we presume, the faculty while in the buildings, and also to teach health and hygiene. salary of the physicians will be a minimum of \$4,000, maximum \$5,000; and of the nurses, minimum \$2,400, maximum \$3,000.

Senate Int. 328—Young, provides that the sale of eyeglasses, spectacles, and lenses shall be made only on prescription of a licensed physician or optometrist, instead of having a physician or optometrist in charge of the counter or booth; excepts sale of ready-made reading spectacles or reading glasses equipped with spherical convex lenses, as merchandise in a store, by persons who do not adapt them to the eye and where selection is solely in the discretion of purchaser. Referred to the Education Committee.

Comment: Senator Young introduced this bill last year at the close of the session, too late for

consideration by the Legislature.

Senate Int. 371—Burney, continues to July 1, 1945, provision permitting persons inducted into military service and licensed to practice medicine, dentistry, and other professions and occupations to apply for renewal of license without examination within three months after termination of military service. Referred to the Defense Committee.

Comment: Senator Burney had a similar bill enacted last year which will expire on July 1, The intention now is to continue the law 1944.

for another year.

Senate Int. 380-Anderson; Assembly Int. 504-Knauf, makes it a misdemeanor to include in any newspaper, radio, display, sign, or other advertisement, any statement which misrepresents material, frames or mounting, or price of lenses or of complete eyeglasses, or to advertise frames unless price of frame is advertised with words "without lenses," or to misrepresent service or credit terms. Referred to the Codes Committees.

Comment: Senator Anderson carried this bill last year and it was advanced to third reading. In the Assembly it was sponsored by Mr. Knauf, where it was killed in committee.

Senate Int. 381-Wicks, suspends until July 1, 1945, provisions prohibiting purchase of butterine or oleomargarine by state institutions. Referred to the Agriculture Committee.

Comment: While it is legal to sell and use oleomargarine in the private home, it is not permitted in state institutions. Senator Wicks suggests that for the period of one year the institutions be permitted to use oleomargarine or other butter substitutes.

Senate Int. 409—Joseph; Assembly Int. 197— Jack, establishes in the Health Department a health insurance fund with an administration board of thirteen members appointed by the Governor; fund to be maintained by contributions of employees, employers, and state, and for payment of cash benefits and for maternity and other medical care; allows persons of low income to insure in system, and appropriates \$100,000. Referred to the Finance Committee in the Senate and the Ways and Means Committee in the Assembly.

Comment: Senator Joseph carried this bill last year and in the Assembly it was sponsored by Mr. Jack who has introduced it again this year.

Assembly Int. 176-Austin, extends provisions for the removal of physicians from lists of those authorized to render medical care in workmen's compensation cases to include misconduct in receiving money or other gratuities from purveyor of medical services, including laboratories, drugs optical supplies, and ambulance service. Referred to the Labor Committee.

Assembly Int. 186—Crews, provides person holding a city position in competitive class as physician, medical inspector, dentist, supervising or clinic medical inspector, dentist, supervising or clinic medical inspector. physician after appointment or promotion following examination and who was employed on June 30, 1940, and paid on per annum basis, shall continue in such position on a per annum basis, salary increments and privileges and retirement rights not to be less than those enjoyed on that date. Referred to the Ways and Means Committee.

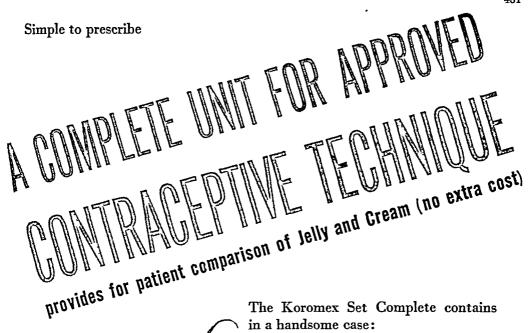
Assembly Int. 252-Farbstein, requires city education boards and school districts maintaining public schools to provide adequate health service for pupils 15 years old and over and facilities to afford physical examination, including x-raying of chest State War Council may help districts financially unable to provide services. Referred to the Education Committee.

Comment: Mr. Farbstein sponsored this bill last year and it was killed in committee.

Assembly Int. 362—Hollowell, provides lists of registered physicians and dentists shall be published and mailed on March 1 in each even-numbered year after 1944, or within ten days, and strikes out provision that additional names of physicians shall be reported. physicians shall be reported quarterly on request to the secretary of the State Medical Society. Referred to the Education Committee.

Comment: Mr. Hollowell proposes that the Department of Education be permitted to publish lish its register of physicians biennially instead of annually. We have called his attention to the fact that the physicians contribute \$2.00 annually for the purpose of having this register made and published, and suggested that if the register is to come out only every two years, should not the assessment be biennial also. He is giving the bill further consideration. He informs us that he introduced it at the request of some physicians in his county. The Department of Education, with the consent of the other pro-fessions, had their laws amended last year to permit of the publication of the register on a biennial basis, but no change was made with regard to the annual assessment. The \$2.00

[Continued on page 430]



in a handsome case:

H-R Diaphragm with special pouch

Koromex Trip Release (takes all size diaphragms)

Tube Koromex Jelly (higher lubricating factor)

Tube Emulsion Cream (lower lubricating factor)

Set Dickinson-Freret Fitting Charts

Price of Koromex Set Complete is only that of the Koromex Diaphragm and Koromex Trip Release Introducer. Attractively packaged with removable label. To prescribe, just write "Koromex Set Complete" and state size of diaphragm.

# Holland-Rantos ompany, Inc.

551 Fifth Avenue, New York 17, N. Y.

[Continued from page 428]

assessment was intended to cover not only the publication of the register but also to help finance the enforcement of the law.

Assembly Int. 369-Molinair, makes it a felony for a person knowing himself to be infected with venereal disease to have intercourse with any person, instead of persons in military or naval service. Referred to the Health Committee.

Assembly Int. 446-Friedman, requires the head of any hospital or asylum to permit performance of ritual circumcision upon a male child born thereat, in accordance with Orthodox Hebrew religious requirements, by rabbi-mohel of the father's own selection, and to provide for observance of religious ceremonies in connection therewith. Referred to the Judiciary Committee.

Assembly Int. 461-Stuart, repeals provision for state aid to tuberculosis patients. Referred to the Ways and Means Committee.

Comment: This bill was introduced at the request of the Department of Health. In 1920 an appropriation of \$10,000 was set aside for the Department of Health to use for investigating private tuberculosis sanitaria. Very few requests were made of the Department in these years and, therefore, it is considered that there is no longer need for the law.

Assembly Int. 505-Knauf, creates in the State Education Department a board for licensing and regulating practice of optical dispensing. Referred to the Ways and Means Committee.

Comment: Same as Senate Int. 9-Wicks, reported in Bulletin No. 1 (February 1 issue,

page 304),

Assembly Int. 518-Backus, provides for care and maintenance at state expense of patients in state tuberculosis hospitals who have no legal settlement in any town or city as defined in Social Welfare Law. Referred to the Health Commit-

Comment: Requires that the county in which a tuberculosis patient has a legal settlement shall be responsible for the hospital care of the patient, provided the hospital care has been authorized by the commissioner of public welfare of the county in which the patient has a legal settlement; and it further requires that the superintendent of the hospital, upon request of the board of supervisors, shall submit a written statement of his inquiry as to the financial circumstances of the patient and his relatives and the reason for his decision that the patient or his relatives are unable to pay either in whole or in part for the care and treatment. In the event that a patient has no legal settlement in any town or city in the state, such care and treatment as he may receive shall be paid by the state.

Assembly Int. 552-J. D. Bennett, authorizes towns to enact ordinances requiring land owners to remove fire and health hazards and weeds and on default permits the town to perform such acts and assess the cost to the owner, notice to be given to nonresident owners. Referred to the Internal Affairs Committee.

> John L. Bauer WALTER W. MOTT LEO F. SIMPSON Committee on Legislation

Joseph S. Lawrence Executive Officer

#### SESSIONS ON MENTAL-HEALTH CARE OF CHILDREN

The Association for the Advancement of Psychotherapy in cooperation with the Ann Reno Institute of New York City announces the following forum discussions on "Present Needs for Advancement in the Mental-Health Care of Children," arranged by Dr. Ernest Harms, editor of the

journal The Nervous Child:
Tuesday, February 29—"How Institutions Assist in the Mental-Health Care of Children," by Lewis R. Wolberg, M.D., director of the children's ward, Kings Park State Hospital, Kings Park, New York. Tuesday, March 14—"Child Labor Problems—

and Mental-Health Care of Children," by Dr. Gertrude Folks Zimland, general secretary of the

National Child Labor Committee.

Tuesday, March 28—"Leisure-Time Activities and Mental-Health Care of Children," by Dr. E. 44 at 8:15 P.M.

De Alton Partridge, New Jersey Teacher's College,

De Alton Partridge, New Jersey Teacher's Conege, Montclair, New Jersey.

Tuesday, April 11—"Vocational Education—and Mental-Health Care of Children," by Dr. Franklin Keller, principal of the Metropolitan Vocational High School of New York City.

Tuesday, April 25—"Public Welfare—and Mental-Health Care of Children," by Dr. Leone Baumgartner, Department of Health, New York City.

Tuesday, May 9—"The General Practitioner—and Mental-Health Care of Children," by Benjamin Spock, M.D., New York.

The first two sessions were held on January 25 and

The first two sessions were held on January 25 and

February 8. The forum discussions will be held at the Ann Reno Institute, 32 West 86th Street, Manhattan,

#### CHARLES MAYER FELLOWSHIPS AWARDED

The Committee on Medical Education of the New York Academy of Medicine has awarded three of the four Fellowships provided by Dr. Charles Mayer to Dr. Harry Goldblatt of Western Reserve University, the Cancer Research Laboratory of the Mount Sinai Hospital, New York City, and Dr. John R. Murlin of the University of Rochester, New York.

A fourth Fellowship of \$2,000 for research on the "Study of the Relationship Between Precancerous Lesions of the Mouth, Hepatic Insufficiency, and Gastrointestinal Disorders" will be held open for further applications until April 15, 1944.

Applications should be sent to Dr. Mahlon Ash-

Applications should be sent to Dr. Mahlon Ashford, Secretary of the Committee, not later than April 1, 1944.



No Longer is it so much a question of whether to prescribe Aluminum Hydroxide Gel as it is which preparation to select. Its clinical value now well established as an adjunct in the treatment of gastric and duodenal ulcers, convenience of administration ("pourability") and palatability become criteria in selecting the brand for your practice.

Aluminum Hydroxide Gel Squibb, while complying with U. S. P. XII specifications, has also a sufficient fluidity to facilitate easy pouring and it is pleasantly flavored to combat the taste-tedium of prolonged medication. Compared with whatever standards you select, you will find it worth prescribing regularly.

The dose is 4 to 8 cc. orally; or, diluted, it may be used as a continuous intragastric drip. Supplied in 12-ounce bottles.

\* BUY WAR BONDS

## E.R. SQUIBB & SONS, NEW YORK

MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

## Woman's Auxiliary

## To the Medical Society of the State of New York

THE midwinter meeting of the Executive Board of the Woman's Auxiliary of the State of New York was held January 12 and 13, at the De Witt Clinton Hotel, Albany. At the dinner Wednesday

night, twenty-seven members were present.

Mrs. F. Leslie Sullivan, the president, called the meeting to order Thursday morning. About thirty Board members were present. Mrs. C. R. Seymour led the group in prayer and read the Nine-teenth Psalm. Mrs. J. S. Lyons, Albany auxiliary president, welcomed the State president, the mem-bers of the Executive Board, and the auxiliary members. Mrs. W. J. Lavelle responded to Mrs. Lyons' welcome. The business was suspended to listen to Miss Yolande Lyon, field representative of the Public Relations Department of the New York State Medical Society. A discussion followed Miss Lyon's talk.

A letter was received from Mrs. Eben J. Carey National Auxiliary president, saying that she would attend the National Board meeting at Chicago,

November 19.

Mrs. Sullivan, State President, gave her report.

Twenty-eight counties were represented at the National Board meeting. All of the state presidents were against the Wagner-Murray-Dingell

Mrs. Sullivan has visited four counties since

October 1.

Mrs. L. H. Kice and Mrs. A. L. Madden gave valuable suggestions along legislative lines. W. J. Lavelle spoke to the Executive Board. Twentyseven counties have been contacted about legislation. Lewis County may be organized soon. Mrs. G. Scott Towne reported twenty-eight National Bulletin subscriptions since June. Mrs. E. A. Griffin reported that money and cards had been sent to the Physicians' Home. A letter had been received from Dr. Fox thanking the Auxiliary for the There is a vacancy on the Board of the Physicians' Home. A request was received to have someone from the Auxiliary group appointed. The presidents from the following counties were present at the Board meeting: Albany, Broome, Columbia, Herkimer, Montgomery, Orange, Rensselaer, and Schenectady.

#### County News

Albany. The annual conference of the county legislative chairmen will be held at the Ten Eyck Hotel, Albany, February 24. Mrs. Joseph O'C. Kiernan was chairman for a dinner which was served at the USO Variety Club Canteen on January 9.

A tea at the home of Mrs. Elton Dickson in Binghamton marked the January meeting of the auxiliary. The function was in honor of the new members of the auxiliary and also the wives of the interns at the local hospital.

Columbia. The January meeting was held at the Red Cross Headquarters. Mrs. Hugh Henry conducted the business meeting. After the business meeting the members helped with the Red Cross work. Mrs. H. G. Henry received the following letter in answer to the one sent to Congressman

Jay Le Fevre:
"Dear Mrs. Henry: Your letter received expressing your opposition to the passage of the Wagner-Murray-Dingell bills, S. 1161 and H.R. 2861. These bills are now in committee and they must take action before any consideration may be held in the House. I am opposed to the principle of federal control, and am following the progress of the bills in the committees closely. I appreciate your writing me regarding this legislation and would be pleased to receive your comments and suggestions at any time on matters before Congress in which you are interested.

Very sincerely yours, Jay Le Fevre"

The Tuberculosis Eradication Association of Columbia County subscribes to the magazine Hygeia, and sends the magazine to the library of the Hendrick Hudson Chapter of the D.A.R.

Mrs. Henry attended the Board meeting on January 13 at the De Witt Clinton Hotel, Albany.

Fulton. The Christmas party and meeting was held at the home of Mrs. M. F. Drury. Christmas decorations were used throughout the home. Mrs. J. Frederick Sarno presided at the meeting.

members had taken action on the Wagner-Murray. Dingell bill, letters had been written, and the bill After the business session was also discussed. carols were sung under the direction of Mrs. Claude Bledsoe. The January meeting was held at the D.A.R. Chapter House. Refreshments were served by Mrs. Austin Hogan, Mrs. J. F. Sarno, Mrs. William Raymond, and Mrs. William Hesek. The next meeting will be at the home of Mrs. Kenneth Foster in Gloversville.

Montgomery. The auxiliary has invited the public to attend meetings March 7-8 at the Junior High School in Amsterdam, at which time Dr. Joseph Lawrence will speak on the proposed legisla-

Nassau. What a nice idea to have a Christmas party and to bring gifts for foster children.

Rensselaer. The auxiliary met at the home of Mrs. Joseph P Lasko, the president. Mrs. Rachael Newlin, superintendent of the Day Home, was the guest speaker. The topic was "The Effects of War on Children." She stressed the importance of proper nutrition and guidance for children and also dis-cussed the problem of working mothers of young children. Tea was served at the conclusion of the meeting. Mrs. Eugene F. Connally presided at the tea table.

The November meeting was a business meeting preceded by a luncheon at the Queensbury. Mrs. F. Leslie Sullivan, President of New York State Auxiliary, was the guest speaker. Fourteen members attended the meeting. Mrs. Burke Diefendorf, county president, conducted the business meeting.

Notice, Auxiliary members—Subscribe to the National Bulletin. Get in touch with Mrs. G. Scott Towne, 150 Phila Street, Saratoga Springs, New York.

The New York State Annual Convention will be held at the Hotel Pennsylvania, New York City, May 8-12.



No Longer is it so much a question of whether to prescribe Aluminum Hydroxide Gel as it is which preparation to select. Its clinical value now well established as an adjunct in the treatment of gastric and duodenal ulcers, convenience of administration ("pourability") and palatability become criteria in selecting the brand for your practice.

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## E.R. SQUIBB & SONS, NEW YORK

MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

## Tuberculosis Abstracts

## Cancer of the Lung-A Growing Problem

There is a masquerading lung disease which often gives quarter for a short time before the fatal issue and whose actions, in many ways, may simulate

those of tuberculosis.

Both diseases are unique, for they masquerade as other acute or chronic conditions of the lung. In neither are symptoms reliable in the early stages. Both diseases are marked by a lack of early reliable physical signs. Both are unique since in the early stages a single X-ray film will usually show some abnormality. Again, they ape one another because in spite of obscure clinical factors the diagnosis can be accurately made in a high percentage of cases. Lastly, there is a similarity between tuberculosis and this masquerading disease, cancer of the lung, as successful treatment depends to such a large degree upon early discovery.

However, the two diseases are different as regards the predominant age groups affected. Tuber-culosis concerns principally the age groups between 15 and 40, whereas lung cancer usually affects those between the ages of 40 and 65. The diseases are totally different in respect to the matter of time. In tuberculosis, time plus rest is often a useful ally of the patient in regaining health. In cancer of the lung the element of time is always an enemy of the patient. Prolonged observation and rest treatment never improve the situation, but rob the

patient of his only chance for possible cure.

In 165 cases of lung cancer it was found that they first consulted a doctor because of symptoms usually associated with almost any chronic chest condition. A review of these symptoms suggests it would be impossible to set apart any group of com-plaints that could be regarded as pathognomonic of pulmonary malignancy. Nevertheless, 82 per cent of all the patients reported chronic cough, while no less than 92 per cent had as a first symptom something that called for attention to be directed to the chest when first the physician was consulted. Besides cough, other common symptoms included chest pain, chills and fever, hemoptysis, dyspnea, loss of weight, and weakness.

Reviewing the physical signs elicited it is again impossible to outline a specific and significant grouping any more suggestive of cancer than of other chronic pulmonary conditions. Cases examined in the early stages often presented no physical signs. When present, the signs were of considerable variety and frequently misleading. They inable variety and frequently misleading. cluded evidence of congestion, consolidation, fluid, localized emphysema, cavitation, bronchial obstruction, mediastinal shift, and other phenomena varying with the case, thus emphasizing the unreliability of simple physical signs in the differential

diagnosis of this condition.

Of the 165 cases, 104 (63 per cent) were incorrectly diagnosed by the first doctor consulted. In view of the confused picture of misleading symptoms and physical findings, perhaps this majority in favor of error is not completely surprising, but the sobering thought emerges that treatment based upon an erroneous diagnosis was maintained for long periods of time, aimed at such supposed conditions as tuberculosis, 40 cases; unresolved pneumonia, 18 cases; lung abscess, 13 cases; bronchitis, 11 cases; asthma, 5; heart disease, 4; pleurisy, 4; metastatic tumors, 2; and miscellaneous, 9 cases. Most notable fact

was the high frequency of false diagnoses of tuberculosis.

Unfortunately, lung cancer was not unmasked in far too many cases until long after the patient first visited a physician. It was possible in 125 case histories to determine how speedily a verified diagnosis was reached. Two facts stood out boldly. First, 36 per cent of the patients placed themselves under medical supervision at onset or within one month of the onset of symptoms. Second, the average patient consulted a doctor within three months of onset but did not receive benefit of a chest x-ray for an additional three months. The true diagnosis was not arrived at until nine months had elapsed from the time when the first doctor saw the patient.

The x-ray, without doubt, is by far the most valuable aid in apprehending pulmonary disease, but a distinction is necessary between its ability to yield presumptive and absolute evidence. In 98 per cent of this series of cases the initial film revealed trouble was present. An explanation of the delay in reaching a final diagnosis may be found in the fact that in the majority of instances the primary pathologic process failed to produce upon the film or the fluoroscopic screen a shadow of

itself.

Those abnormalities that did appear were secondary effects due to the presence of the neoplasm and were of such variability as to be susceptible of a wide range of interpretation.

In 95 per cent of the cases it was possible to establish an unequivocal diagnosis during life, bronchoscopy being the leading method of obtaining tissue, and having been employed in 103 cases. In 39 other cases surgical exploration was used. Metastases were sectioned in a few cases, aspiration was the method in another small group, while the remaining 5 per cent were diagnosed only after

postmortem examination.

For a decade surgery has been available in the treatment of lung cancer. A creditable showing has been made during this pioneering period. For example, 2 out of every 5 cases surgically explored have been found to be free of extension of the cancer extrapulmonarily. The percentage of the entire group of verified cases for whom there was some hope of cure was 20 per cent. This seems an encouraging ratio when we recall that prior to 1933 there was no reason to regard the condition as anything but incurable. As a reward for our efforts, 20 patients, or 13 per cent, remain as the net salvage from the entire series of 156 verified cases of primary lung cancer, out of 32 individuals selected for an attempt at curative resection. These 20 patients are all reasonably well and devoid of evidence of metastatic disease, while five of them can be referred to as "cures" in so far as they have now passed the fiveyear mark.

In considering practical steps toward bringing cases of lung cancer to light during their curable stage we can learn valuable lessons from the record on tuberculosis case finding. Physicians have been taught that if tuberculosis is to be discovered during its minimal stage it is necessary not to search for absent or insignificant symptoms and physical signs but to go immediately to the x-ray. The

[Continued on page 438]



# The OK ration for war and peace

As further and further studies are made on bread, the clearer it becomes why bread has been a fundamental food throughout the ages.

And why, today more than ever, it deserves that position.

Bread is one of the best sources of foodenergy—needed for the fight in the soldier's diet, the work in the diet of those back home.

It supplies protein. Recent findings show bread is a good source of threo-

nine, one of the eight essential aminoacids of the body-building proteins.

And as white bread is made today, it provides valuable amounts of thiamin, ribo-flavin, niacin and iron.

This is why bread occupies an important place in one of the seven basic food groups which should be eaten every day.

It's why physicians will find that, in these days and in the days to come, bread will continue to be a fundamental food in every normal diet, and a valuable asset in many of the special diets they pre-

Bread is basic

scribe.





## Walker's A-D DROPS

SOMETHING NEW! Natural esters of vitamin A (distilled from fish liver and vegetable oils), plus activated ergosterol in a vehicle of refined corn oil.

Advantages of this new product are:

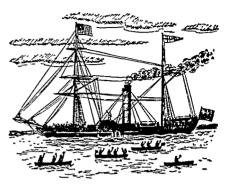
- 1. Practically no "fishy" odor or taste.
- 2. Excellent stability.
- 3. Each DROP supplies
  Vitamin A—2,000 U.S.P. Units
  Vitamin D— 300 U.S.P. Units
- 4. It's good —it's flavored with cinnamon.
- 5. It's "Council Accepted."

From infancy through childhood—for good "A-D" insurance—prescribe WALKER'S A-D DROPS.

## WALKER

VITAMIN PRODUCTS, INC. MOUNT VERNON • NEW YORK

# The Ship is different today...



English Steam Packet of the early 19th century

# BUT this Passenger is still the same!

Still as distinctively mellow and smooth as the day it first came over from Scotland... that's Johnnie Walker.

Due to British War Restrictions, gold foil has been eliminated and other slight changes have been made on the outside of the familiar Johnnie Walker bottle—but inside good old Johnnie Walker whisky remains unchanged.





## Johnnie Walker

BLENDED SCOTCH WHISKY

RED LABEL 8 YEARS OLD BLACK LABEL 12 YEARS OLD

Both 86.8 Proof

Canada Dry Ginger Ale, Inc., New York, N. Y.

Sole Importer

BUY UNITED STATES WAR BONDS AND STAMPS

# COLLOID: L // IO YIZABLE IRON



## In the CHLOROSIS YEARS

WHILE the incidence of frank chlorosis is today much lower than in former years, there is nevertheless a decided tendency for adolescent growing girls to develop a characteristic clinical triumvirate—anemia, malnutrition and digestive malfunction. In combating this syndrome, colloidal iron-protein has major therapeutic advantages over the iron salts. The salts (sulphates, citrates, etc.) are split up in the stomach with release of ions likely to be astringent and irritating. In the intestine, such ions form inert precipitates which are dehydrating, constipating and difficult to assimilate.

But the iron in OVOFERRIN is colloidal iron protein. It is not in ionic form It is little affected by the gastric juice. It is stable and cannot irri-

tate. It arrives in the intestine as a fully hydrated colloidal oxide which cannot constipate and is readily assimilable. It is noteworthy that most nutriment is absorbed in colloidal form.

Not only is OVOFERRIN a rapid bloodbuilder, free from irritating and constipating effects, but it appears to have a decided propensity for appetite stimulation. Important also in insuring patient co-operation in these finicky young ladies is the fact that it is tasteless and odorless and that it cannot stain or dissolve tooth enamel. But it achieves these effects, not by coating or sweetening or masking, but by the simple inherent fact of its colloidal form. Dosage—one tablespoonful in a little milk or water at meals and bedtime.



## Prescribe OVOFERRIN

COLLOIDAL IRON-PROTEIN BLOOD-BUILDER In Secondary Anemia, Convalescence, Pregnancy, "The Pale Child," and Run Down States

A. C. BARNES COMPANY, NEW BRUNSWICK, N. J.
"Ovolerrin" is a registered trade mark, the property of A. C. Barnes Co.

[Continued from page 434]

same can be said for the apprehension of early lung

How may the first doctor consulted set in motion this mechanism of early discovery? He may save valuable time for his patient if he remembers:

That cancer of the lung is now one of the most important diseases of the chest in patients within the age period from 40 to 65 years, particularly in males.

2. That many patients do seek help at a time

when the lesion is still confined to the lung.

3. That symptoms and signs are either lacking or misleading in the early stages.

That the earliest lesions will in almost every case produce some telltale shadow on the x-ray film, and

5. Finally, that there are two methods available for clinching the diagnosis:

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The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, June 19-June 22, 1944, Hotel Jefferson, St. Louis, Missouri.

Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee, on or before March 15, 1944.

#### NEW JOURNAL ON ALLERGY

The Annals of Allergy, published by the American

College of Allergists, recently made its appearance. Dr. French K. Hansel, of St. Louis, is editor-in-chief. The editorial board includes a staff of corresponding editors from fifteen foreign countries and the United States possessions and is composed of specialists who have made some personal contributions to the field as related to their own particular specialty, internists, otolaryngologists and ophthalmologists, pediatricians, dermatologists, gastro-enterologists, immunologists, bacteriologists (mycol-ogists), pharmacologists, biochemists, botanists, plant pathologists, and others. The college was incorporated in November, 1942, and its objectives are to supplement the work of existing allergy groups as well as to "emphasize and consider numerous phases of the subject heretofore overlooked." Dr. Frederick W. Wittich, of Minneapolis, is secretary of the college.



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INC. Worcester Massachusetts [Continued from page 434]

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3. That symptoms and signs are either lacking or misleading in the early stages.

- That the earliest lesions will in almost every case produce some telltale shadow on the x-ray film, and
- 5. Finally, that there are two methods available for clinching the diagnosis:

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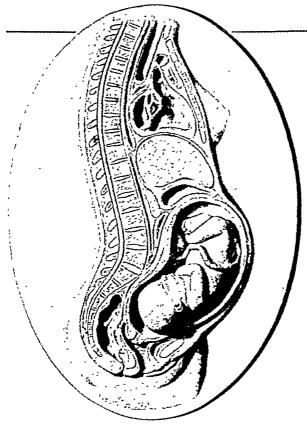
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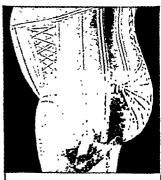
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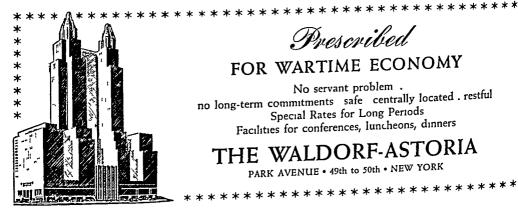




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Walter Legge, writing in the Granby Leader-Mail about a recent trip to the Maritime Provinces, told

the following story:

On one of the fast trains of the Canadian National Railways between Montreal and Halifax, a lady was trying to get into an upper berth but the porter could not find the ladder. "Lady," he said, "I have been a porter for eighteen years and this is the first time I ever lost my ladder. I had it right here a minute ago."

At this moment, an English sailor popped his head out of an upper berth and said, "I'll lend you my ladder 'til morning." He had pulled the ladder

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#### RAIL TICKET SCALPING OUT

An announcement made by the ODT of a nationwide campaign to stamp out a black market in railroad ticket reservations was reported in the January 1st issue of Travel Items. In connection with this effort, the ODT has enlisted the aid of the FBI, the Secret Service, and the Internal Revenue Bureau.

The officials of these organizations appeal to the public to "give us specific cases", citing dates,

persons involved, and train space bought.

Representative Halleck (R., Ind.) of the Interstate Commerce Committee, believes legislative action may be required to check this black market. He advised, however, that a distinction be made between black market gouging and legitimate service charges for handling tickets.

In New York City, Mayor La Guardia has shown one way to combat the black market by signing a local law that makes it a misdemeanor, which can bring a \$100 fine or ten days in jail, for any individual or business concern to charge more than \$1 for providing railroad, plane or bus tickets or accommodations. This, however, does not apply to tickets to or from places outside the continental United States and Canada, except Alaska, or to existing contracts with agencies covering tourist or travel service. The FBI and private detectives are investigating ticket scalping in New York, Chicago, Miami and other centers. Railroad spokesman reported several discharges of employees found to be collaborating with the black market. While railroad investigators have been checking the situation, it is difficult for a railroad to tell just when a ticket is being purchased legitimately and when it may be going to a speculator.

So it is more or less up to the public to

help.

Numerous varieties of black market, or some-thing close to it, have been reported. There has been block buying of reservations by large industrial concerns, some of them turned back to the railroads at the last minute. Some black market operators are believed to have kept "runners" on the lookout for train space wherever it can be bought, including pickup of last minute cancellations.

A new law planned by Congressmen will require a federal license for all persons doing business as travel agents within the United States. Requirements to obtain a license will be good character, financial responsibility, and at least three years experience in the general travel field. A board of examiners will pass on the qualifications of all applicants.



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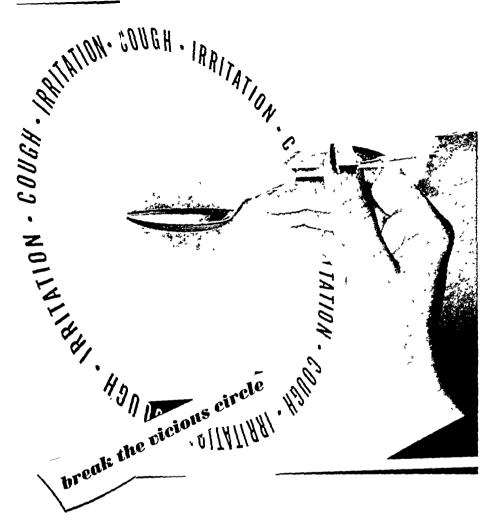
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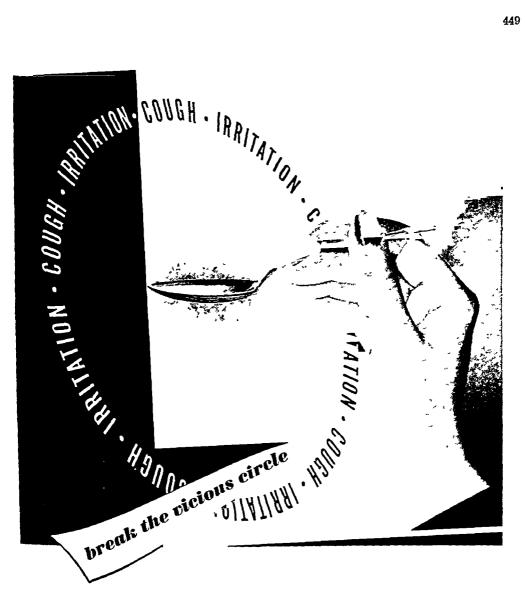


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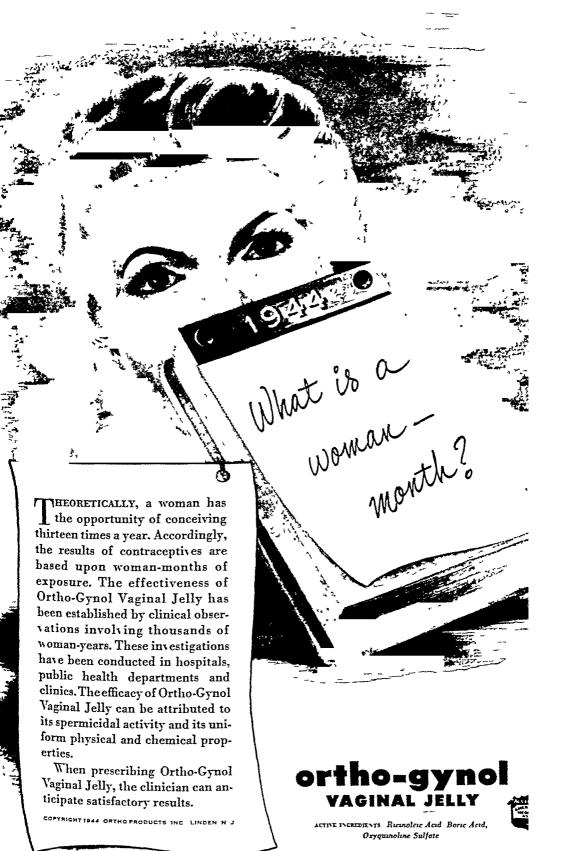
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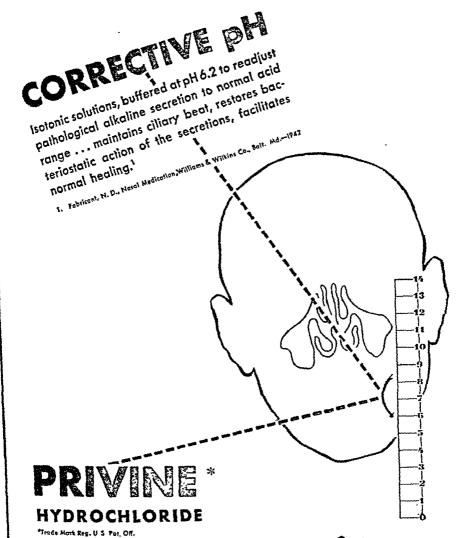
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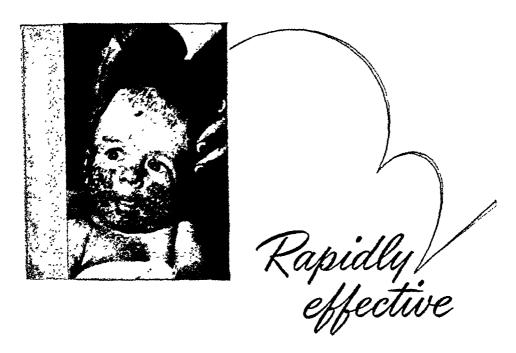
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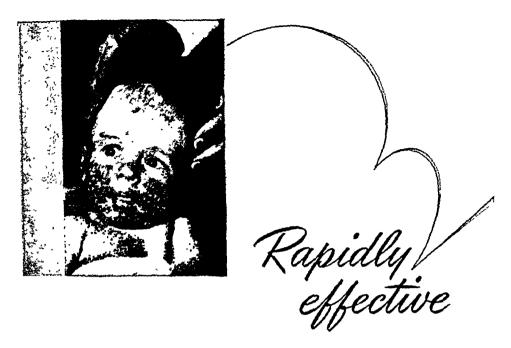


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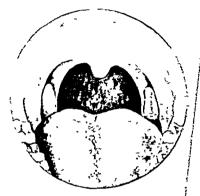
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Pharyngeal irritation associated with acute coryza and non-specific upper-respiratory infections

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Brings the analgesic (acetylsalicylic acid) into immediate and *prolonged* contact with inflamed, painful areas—the tonsillar region and pharyngeal mucosa—areas seldom reached, and then only briefly, by gargles or irrigations.

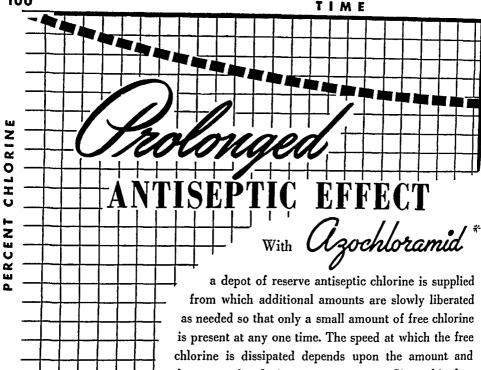
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from which additional amounts are slowly liberated as needed so that only a small amount of free chlorine is present at any one time. The speed at which the free chlorine is dissipated depends upon the amount and character of reducing groups present. Since this free chlorine has a great affinity for strongly reducing groups usually present in micro-organisms, the effect of AZOCHLORAMID on tissues is mild.

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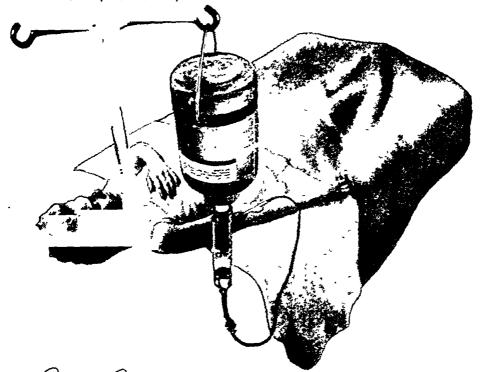
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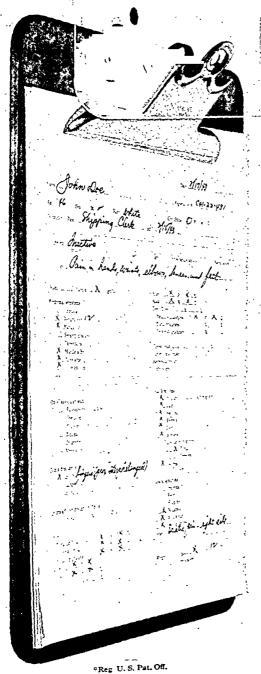
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# Clinical Response

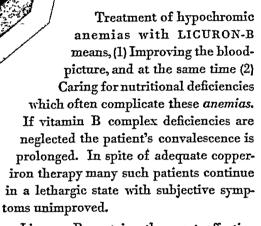
ESTABLISHES SAFE ANTIARTHRITIC EFFECT OF



ERTRON

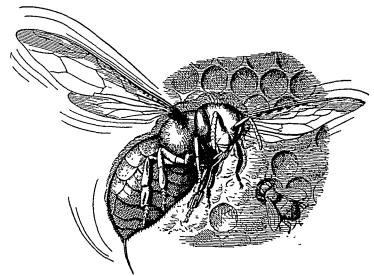
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# NEW YORK STATE JOURNAL OF MEDICINE

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**VOLUME 44** 

MARCH 1, 1944

NUMBER 5

## Editorial

#### What Others Think

Professor Ross A. McFarland<sup>1</sup> says, in part, as quoted by Industrial Medicine for February, 1944:

Physicians, as a group, have a wide background of knowledge in various fields, and they have spent many years of their lives in advanced study. Thus they have learned to think, and they do think, or they could not keep up in their profession. Unfortunately, however, their professional duties too often leave no time for their thinking to extend to any other fields, let alone the many others in which they have knowledge But this is a period when, probably more than ever before, it behooves all men who can think, and especially professional men, to do some earnest mentalizing with regard to certain matters of general and community and national interest. Two of these matters are history and formation to the community of these matters are history and economics—the first in respect of the kind of history this country is making, and the second as to the kind of economics our American way of life is being regimented into....

It strikes us that on the whole, physicians are too apt to think in terms of the past and to be, if anything, too little sensitive to the influences of current history; that is, to the influences of history in the making on their environment, on their future conduct, on the kinds of medical practice which will fulfill functionally the needs of today and tomorrow. Naturally this implies a study also of the changing economic picture and its influences. Some of this we touched on briefly in our January 1, 1944, issue.2

The profession has been for some time in a state of ferment. This is a healthy sign that complacency and dry rot within the

D 31 et seq. 11 to 2 Feb. 1944 p 5

profession are being sought out. In this process the physicians' own organization is being scrutinized carefully and thoughtfully. Says the Westchester Medical Bulletin:3

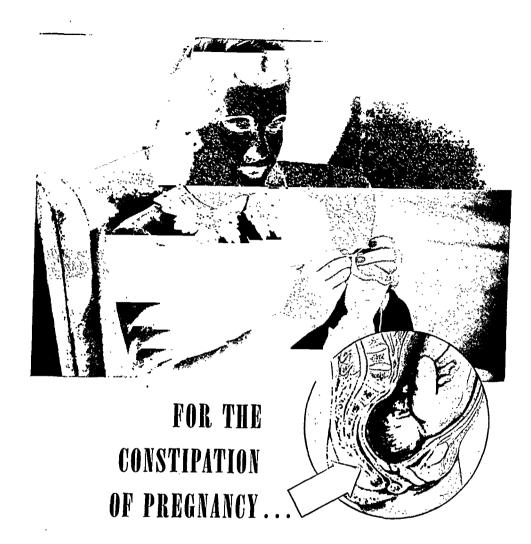
Organized Medicine.

In the Hall of Misnomers this term deserves charter membership. Medicine has an organization; but it is not organized. Usually the term is used with reference to the American Medical Association; as well speak of the American Astronomical Society as "organized astronomy"—and when, if ever, has the American Bar Association been called "organized astronomy".

The American Medical Association is an organization: by definition "an association or society." It was founded "to promote the science and art of medicine and the betterment of public health." The present organization maintains various bureaus called "councils" and publishes a number of scientific journals. Through these media the American Medical Association has contributed in no small measure to the high ethical and scientific standards of medical practice obtaining in this country today. It has been largely responsible for the continued elevation of standards of medical education and hospital service. It has consistently protected the public interest by its investigations of the claims made for different forms of therapy and therapeutic agents Through its publications it has had a powerful influence in the forward progress of scientific medicine and in the continuing education of the individual physician, whether in general or special fields. It is an organization of which any physician may be proud-of which any country might be proud

But the American Medical Association is not organized: to organize is "to become systematized or constructed into a whole of interdependent parts." No physician is a member of the A M.A. except by courtesy of his membership in his county and state society. No physician, no county society, no state society contributes to the financial support of the A.M.A. The physician may subscribe to the Journal of the American Medical Association, but he does not become a member of the A.M.A. by subscribing to the Journal, and he does not lose his membership in his county society by not subscribing to the Journal

A Medical Program for Aviation, Harvard Review (Bigines), Autumn Number, 1943



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poses—progress in bringing about a change in the public's and legislators' reactions will be of only moderate amount. In other words, if more active steps are not taken, the American Medical Association, its constituent state associations, and the latter's component county medical societies will continue to lose prestige and power in the promotion of public health work and scientific medicine. Time, in all this, is of the essence

The importance of the time element is emphasized in a recent article which appeared in the Westchester Medical Bulletin for November, published by the Medical Society of the County of Westchester, New York, and having the following title and subhead:

"THE TIME IS NOW!
What Must Be Done If the Medical
Profession Is to Fulfill Its
Fundamental Obligation to the
American People?—
A Plam Call to Action!"

Evidently the Time is Now! in the opinion of other physicians in various parts of the nation. The Hennepin County Medical Society (Minnesota) publishes in its Bulletin for January, 1944,<sup>5</sup> an article, "Growing Pains in Medicine," from which we quote:

That there is increasing discontent and dissatisfaction among physicians with conduct of the affairs of their national organization should be obvious to anyone who makes a real effort to learn the facts. This dissatisfaction is not with the scientific aspects of medicine: it is focused sharply on the public relations policy—or lack of one—of the medical guild and on the plans—or lack of them—for the distribution of medical care

That the profession is demanding and will continue to demand something other than dogged my opic defense of the status quo from its House of Delegates, officers, and employes is, or should be, apparent even to those individuals

And merely to criticize without offering something constructive in the way of a solution for the problems seen is patently unfair and unimaginative, both on the part of the present-day critics and what has been termed the "apparently self-perpetuating officials of the A.M.A..."

One's complacency should be jolted by the caustic, even beligerent criticisms of national medical leadership. One finds that leadership characterized as "top drawer impresarios and professional office holders," as an "inner sanctum. (which has) vegetated for many years in complacent cataleptic doldrums..." Very frequently, the lack of leader ship is decried. Numerous county and state organizations or groups have adopted strong resolutions calling for prompt translation into action of the expressed or widespread desires of the physicians in active practice. Regrettably, there have been hints of eccession.

The effect, if any, of all this on the "inner sanctum" is, as jet, not discernible. It is idle to attempt to dismiss this healthy interest in the conduct of medical affairs as the explosive opinions of malcontents and radicals.

contents and radicals

It is idle to charge—as one A M A official has done, off the record, of course—that the prevailing unrest and dissatisfaction is traceable to the Executive Secretary group —As a group, their loyalty and

sincerity will be attested by members of the organizations which they serve. As a group, they probably give more thought and study to the problems of medicine than most physicians. As a group, one of their tasks is to watch trends and developments and bring these to the attention of their employers for decisions on policy. Merely to blame the present unrest on this group is a palpably weak defense mechanism....

mechanism.....

To ignore this unrest would seem a dangerous tactical error, whatever opinion the "inner sanctum" may hold. This is not a passing squall which, if disregarded, will blow itself out As has been noted, already there have been broad hints of independent action to accomplish what should have been done by medicine's own organization....

To assert that those voicing this dissatisfaction are uninformed as to the real situation and entertain no constructive proposals, is plain misrepresentation . . .

Many really constructive ideas based on informed opinion are emanating from the profession in Rhode Island, California, New York, Ohio, Michigan, Connecticut, and many other states of the Union They can be found in the journals of the state societies and in the bulletins of some of the county societies, in resolutions such as those adopted at various times by the Westchester County Medical Society, the House of Delegates of the Indiana State Medical Association, the resolution of the Western State Medical Association (December 11. 1943, Salt Lake City, Utah, qv) and in a recent article in the Westchester Medical Bulletin," "The Time is Now-For a Washington Office!" Space does not permit more than a brief mention of a few of the constructive ideas and suggestions In general, the Bulletin of the Hennepin County Society4 classifies them as follows

First, state and county medical journals all over the country reflect growing discontent within the profession with the public relations policy of the A M A . . . and considering the comments of many members of Congress and other unbiased observers, it was more than startling to hear the President-elect of the A.M A declare (at the Conference of Secretaries and Editors at Chicago in November), "I believe the public relations of the (American Medical) Association are being handled perfectly I certainly think it would be a mistake to have it run in any other way ."

Second, "it is interesting to observe that an increasing number of medical journals advocate the establishment of a Washington bureau by the AMA, even at the risk of losing the latter's taxevempt status."

Third, it has been suggested that in order to make the A M A House of Delegates more responsive to the opinions of the profession, it would be desir-

<sup>\* \</sup>c] 15 \o 1, Jan , 1944, p 1 et aq

<sup>4</sup> J. Indiana M A, Dec. 1943, p 668

<sup>7</sup> Westchester Med Bull Vol XII, No 2 Feb 1944 p 7

The revenue of the Association is derived not from dues, but from the publication of its numerous medical journals. In the present-day usage of the term, how can anything be "organized" if its mem-

bers pay no dues?

But why shouldn't there be an "organized medi-cine"? Not the American Medical Association; its field of scientific endeavor is too vital to permit any dispersal of its efforts. At times it has been compelled to assume the role of spokesman for the medipelied to assume the role of spokesman for the medical profession in the absence of any other; but why shouldn't the medical profession be its own "spokesman"? Is it not time for the medical profession to admit that there is an economic—yes, and a political—aspect of medicine; that the practice of medicine is, in fact, a business as well as a profession—with economic as well as scientific problems? . . . .

From the Middle West comes to hand Volume 1, Number 1, of a new publication, the News of the Association of American Physicians and Surgeons, which has been

Established upon a sound legal foundation to give its members a positive guarantee of protection from political regimentation, and organized to take effective action in medical economics, legislation, and public relations; the Association of American Physicians and Surgeons has been incorporated, not for profit, by the members of the Lake County Medical Society, with temporary headquarters at Gary, Indiana.

The eight objectives of the Association are stated on page 1 of the issue and are here quoted for the information of our readers:

To organize all ethical physicians and surgeons of the United States and its possessions in an Association so established that its members may determine and enforce the conditions under which they will or

will not give their services.

2. To prevent participa 2. To prevent participation by a minority of its members in any plan or scheme for the distribution of medical care that is deemed by the majority to be inimical to the interests of the Association and not

conducive to the improvement of the public health

and welfare.
3. To establish by means of a national assembly of its members, in which all members have both voice and vote, a truly democratic organization of physicians and surgeons that is governed by its members and therefore actually representative of them.

Through effective action in the public interest, and under the direction of a qualified public relations counsel, to earn the good public relations and resulting public approval and support the profession

so richly deserves.

5. To move from the defensive to the offensive of problems. in the work toward the actual solution of problems in medical economics and to keep the economics of medicine under the management and control of the practitioners of medicine.

6. By means of adequate organization and competent executive action, to translate into successful accomplishment the decisions of the profession which have heretofore remained only words on the record.

7. To establish a Washington office of the Association for the execution of prompt and effective legislative action by the profession.

8. To provide a medium of expression for and actual assistance to members of the profession in the armed forces, during both the time of their military service and the period of their readjustment to civilian practice.

To the membership of the Medical Society of the State of New York, objective 4 above will appear encouraging, in that for many years the Society has successfully maintained its own Public Relations Bureau under the guidance of able public relations counsel, with notably satisfactory results. Continues the News:

The by-laws establish a Committee on Public Relations, whose duties it shall be to work toward the establishment of general public understanding of and cooperation with the profession.

At such time as this committee finds it advisable, and with the consent of the board of directors, it shall employ a full-time public relations expert, whose duty it shall be to attend all meetings of this organization and its committees, including the board of directors....

This seems to be a healthy step in the right direction, always provided that the "public relations expert" is in fact competent in his field, and if so, given a free hand. This experiment of the Lake County Medical Society will be watched with interest.

California and Western Medicine<sup>4</sup> says of the public relations of medicine in part:

During the last decade or so, it has become increasingly apparent that the medical profession has been losing influence in relation to legislation that has a direct bearing on public health activities, or on the standards and system of medical practice. Not that individual physicians are held in less regard than in days of the past, but rather, in their conjoint set-up, as represented by organized medicine-namely, national, constituent state, and component county medical societies—the profession is looked upon with more or less suspicion by many members of the United States Congress and by State and local legislative bodies. And, it may be added, likewise by thousands of citizens.

This unfortunate state of affairs is recognized by a host of physicians, many of whom are asking them-selves, "What has brought about this changed reaction of national and other legislators to organized

medicine?"

Advocating the formation of Public Health Leagues by all state medical associations, the California journal states:

It is the belief of many physicians who have inti-mate affiliations with the work and needs of organized and scientific medicine that until organizations or groups such as the Public Health League of California are brought into existence in the various States of the Union-the state groups, in turn, to form a national federation of their own, with similar pur-

Vol. 59, No. 6, Dec., 1943, p. 302 et seq.

# RECENT ADVANCES IN THE DIAGNOSIS AND TREATMENT OF VIRUS AND ATYPICAL PNEUMONIAS

JACOB SACHS, M.D., Brooklyn

THE evolution of our present concept of pneu-I monia marks an interesting chapter in medicine. This disease was known to the ancients and was recognized by Hippocrates and the Greek physicians. The physical findings and morbid anatomy were first classically described by Laennec in 1819. Morgagni made accurate pathologic observations at the end of the seventeenth century, and later Rokitansky differentiated the lobar and lobular types. In 1884, Fraenkel<sup>1</sup> and Weichselbaum discovered the pneumococcus as the usual causative agent of this disease. Further progress was made in 1917. Since then serotherapy, pioneered by Cole<sup>2</sup> and later advocated by Bullowa, Cooper, 4 and others, has not only become the first effective specific treatment, but has also made it possible to determine numerous type-specific pneumococci. With the advent of chemotherapy in 1938 by Whitbys and by Evans,6 epochal advances were made in the etiology, prognosis, and treatment of this disease.

We now know that pneumonia is a syndrome produced by various bacteria, viruses, and other agents. The bacterial pneumonias respond to chemotherapy and are characterized by a positive sputum, pronounced symptoms, marked lung signs, and dense x-ray shadows. The non-bacterial cases are resistant to the sulfonamides and are diagnosed by an insidious onset with grippal symptoms, negative sputum, low leukocyte count, few lung signs, and soft, patchy x-ray findings. The clinical aspects of the latter group are illustrated in the following cases.

#### Case Reports

Case 1.-A. A., a 10-year-old boy, developed fever, headache, cough, and sore throat on August 1, 1942. The temperature became normal within forty-eight hours, but rose again to 103 F. on the third day. His physician now started him on sulfadiazine, but the symptoms persisted, and I saw him in consultation on the fifth day. At this time he did not appear sick; the respirations were 24, pulse was 86, and the temperature 103.2 F. The cough was rasping and frequent, the sputum viscid and clear, and there were crackling rales at the left base. I suspected a viral pneumonia, stopped the sulfonamides, and sent the patient to the hospital. There his sputum remained clear and bacteria-free; the rough was exhausting and the fever persisted for six more days. The pulse and respirations were not accelerated and the white blood count was 8,500.

The lung signs increased and the x-rays showed a soft shadow at the left base. The patient recovered on symptomatic treatment, but sixteen days later his older sister developed a similar pneumonia at home, with ten days of fever, followed by recovery.

Case 2.—Mrs. A. S., aged 47, developed a mild viral bronchopneumonia which remained confined to the base of the left lung. The severe cough, however, persisted for three weeks after the patient's discharge from the hospital.

Case S.—Mr. B. L., aged 36, after recovering from a mild right basal viral pneumonia, developed two minor bouts of fever at home at ten-day intervals.

Case 4.-Mrs. H. K., aged 24, represented a moderately severe type, with the pneumonic process confined to one lobe. She was admitted to the Israel Zion Hospital on the eleventh day of her illness, with pronounced patchy consolidation of the left lower lobe. Before this, she had had a rather stormy course at home, with dyspnea, cyanosis, rapid pulse, severe cough, and fever spiking to 105 F. for eleven days, in spite of sulfonamide medication. sputum was obtained and the white blood count was normal. On her admission to the hospital, the leukocytes rose to 14,000 within three days; the temperature dropped to normal and the signs disappeared. The therapy consisted of steam inhalation and codeine for her cough and the sulfonamides were discontinued. The x-ray in the hospital was positive for patchy consolidation.

Case 5.—Mr. Y., 42 years old, had another moderately severe case, with fever and lung signs for ten days. On the fifth day of sulfonamide therapy, a toxic rash developed and the sulfa blood level reached 25 mg. per cent without any effect on the pneumonia. The sulfonamides were stopped and phleboclysis was administered. The fever and lung signs disappeared five days later and the patient recovered.

Case 6.-Mrs. H. R., 22 years old, had a severe virus pneumonia, which was later complicated by a secondary staphylococcic invasion, which, in turn, required continuation of chemotherapy. She entered the hospital on January 26, 1942, with signs of pneumonitis at the left base, preceded by influenzal symptoms for three days. In spite of chemotherapy, the temperature, pulse, and respiration remained high, and the lung signs increased. The leukocyte count was 8,000. The sputum, which remained negative for some time, later showed a few untyped bacteria, and the blood culture became positive for hemolytic staphylococci. On February 13, her physician contracted a nonbacterial pneumonia. This was the nineteenth day of her illness and the fifteenth day after his first exposure. At this time, when I first examined the patient, she appeared very sick, with a temperature of 105 F., marked dyspnea and cyanosis, and there

From the Department of Medicine, Israel Zion Hospital, Brooklyn.

able to limit the number of terms which any delegate

may serve..... Fourth, there is a growing conviction that the activities of the editor of the Journal of the American Medical Association should be sharply curtailed and very definitely restricted to editing that excellent publication....

Fifth, the so-called insurgents feel that while an interest in geriatrics and history is of undoubted value, the future also is of no little consequence and medicine therefore should hasten to get into step with today's social thinking, abandon its obstructionist attitude, and make positive proposals....

Sixth, it is felt that the Council on Medical Service and Public Relations, which, so this group hopes, will at last provide American medicine representation in Washington which will be persona grata, should renew the proposal of the A.M.A. for creation of a Department of Health, headed by a practicing physician as Secretary, who would be a Cabinat member.

a Cabinet member.....
Seventh, the A.M.A.'s loyal opposition stresses the urgent necessity for greater unity within the ranks of the profession itself. Many medical journals complain that state and local plans for prepaid medical care are not receiving proper support from the membership whose plans these are. Moves to establish a Washington office independent of the A.M.A. suggest a degree of disunity which is alarming. Is there anything in this, the opposition asks, that could not be corrected by a more vigorous leadership, a leadership which will actually lead, officers who will command confidence and who will contribute realistic, constructive ideas which reflect the thinking of the profession?

We present these excerpts and suggestions from numerous sources and the subjoined bibliography in an attempt, admittedly incomplete, to inform our membership of the principal symptoms of professional 'volcanism' manifesting themselves throughout the Union. We believe the physicians of the Medical Society of the State of New York are fully capable of doing their own thinking, of making their own decisions, and of making those decisions effective through their delegates and association officers. There is danger in haste, and even more in delay. Time and tide wait for no man, and the sands are running To be fully informed offers the greatest safeguard against rash decisions and the best guarantee of wise ones.

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Editor's Note: As we go to press, we are advised by its chairman, Dr. Louis H. Bauer, that the A.M.A. Council on Medical Service and Public Relations has under consideration the advisability and practicability of the establishment of a Washington office for the purpose of Medical Economic Research. It is hoped that a more definite and detailed statement as to the action of the Council and of the A.M.A. governing body on this question can be published in our next issue.

monia: mild, moderate, and severe. In every case, the onset is usually insidious, with grippal symptoms, followed in three or four days by a secondary rise in temperature, marked continuous headache, intractable cough, and sweats. The pulse and respirations are not increased, the leukocyte count is low, the sputum, if present, is not hemorrhagic; the physical signs are not remarkable, but the x-ray findings are increased out of proportion to the physical findings. Later there may develop explosive rales followed by patchy areas of consolidation.

In the severer cases the pulse and respirations become more rapid and cyanosis may develop. The temperature, which usually falls on the third day, rises again on the fourth or fifth day and may spike for two or three weeks longer, unaffected by chemotherapy. The lungs later develop sticky rales, followed by physical and x-ray evidences of patchy areas involving more than one lobe. The leukocyte count, at first low, later rises to 15,000 during convalescence. Sometimes a virus pneumonia may suffer a secondary bacterial invasion. This is diagnosed by a sudden chill, higher fever, and leukocytosis, associated with an increasing number of bacteria in the sputum or sometimes by a positive blood culture.

At present, laboratory procedures cannot be applied for the early diagnosis of viral infection, but only for its later phases, or in retrospect. These procedures consist in the transmission of the disease to susceptible animals by the throat washings of the victim; or in the recovery of an increasing neutralizing antibody titer in man. The diagnosis must therefore be made by exclusion and on clinical grounds. Viral pneumonia does not respond to sulfonamides; the sputum, blood, and agglutination tests are negative; but its clinical picture is characteristic. At autopsy, the lungs show bronchopneumonic · areas consisting mostly of mononuclear cells, but no fibrin. They are deep red in color, juicy, and bacteria-free.

The bacterial pneumonias usually have an abrupt onset and a short incubation period of about one to four days. The pneumococcus is responsible for about 86 per cent of all pneumonias, 80 per cent of which are caused by types 1 to 8. The remainder are due to the streptococcus, staphylococcus, the bacillus of influenza, Friedländer and tularemia, or to a virus or a Rickettsial agent. The importance of an early bacterial diagnosis is self-evident, since both the prognosis and treatment depend upon it. In the absence of a positive sputum or blood culture, the bacterial nature of the infection, for purposes of therapy, may nevertheless be determined solely from the clinical features, which are therefore outlined below.

Pneumococcus pneumonia is characterized clinically by a sudden onset with chill, fever, pain in the chest, cough, rusty viscid sputum, cyanosis, and rapid pulse and respirations. There is a high leukocytosis with pronounced physical and x-ray findings indicative of dense consolidation.

The Friedländer infection presents a similar symptomatology, <sup>16</sup> but there is no leukocytosis and the sputum is a uniformly red, nonsticky emulsion. Abscess formation occurs frequently and the mortality is high.

Tularemia pneumonia is usually diagnosed by the agglutination test and sometimes by a positive sputum or skin test. It may occur primarily, as a result of inhalation by persons engaged in sheep shearing, or secondarily to a systemic tularemia acquired from wild rabbits or the bites of ticks and deer flies. According to Richards,<sup>17</sup> this infection responds to sulfanilamide.

The influenzal bacillus produces either a highly fatal hemorrhagic necrotizing tracheobronchitis or a pneumonia secondary to an existing virus infection. Staphylococcus and streptococcus pneumonias are usually due to secondary invasion.

#### Management

The intelligent use of specific treatment in pneumonia requires precise bacteriologic data. In all bacterial cases chemotherapy is the method of choice. It is most effective in pneumococcal infections, less so in other bacterial types, but it is ineffective in the viral or Rickettsial type. In pneumococcus infections, specific serum should be used when the sulfonamides prove to be ineffective or toxic. A combination of both serum and chemotherapy is indicated in spreading pneumonia, or in cases with bacteremia.

The procedure, therefore, is as follows: In every case of pneumonia, as soon as the clinical diagnosis is established the blood and sputum should be sent to the laboratory and chemotherapy should be instituted at once, even before the bacterial report is returned. The only absolute contraindication is a known sensitivity to the drug.18 The sulfonamides exert their maximum effects within thirty-six to forty-eight hours. Failure to respond within this time therefore suggests several possibilities, the causes for which should be ascertained and corrected. At this point, in all bacterial cases, as determined either by the laboratory findings or solely on clinical grounds, chemotherapy should be continued, provided contraindications do not exist. If the fever continues and it is found to be due to drug intoxication, medication should be stopped and resumed cautiously\_later, as required. Inwere many bubbling rales over both lungs. I thought she was now suffering from a secondary staphylococcic invasion of a primary viral pneumonia, and therefore ordered resumption of chemotherapy and oxygen. A few days later the patient was transferred to the medical ward, where the fever and lung signs continued. She was discharged against advice on February 23, 1942, and recovered later at home. The x-rays first revealed increased bronchial markings, with soft shading of the left base, and later showed a definite spread to both lungs, with patches of bronchopneumonia.

Case 7.—This case illustrated a probable secondary pneumococcus invasion. B. G., a 15-year-old boy, became sick on October 21, 1942, with fever, headache, and sore throat. The fever continued to spike to 105 F. and he developed a harsh cough, viscid white sputum, and profuse perspiration, but no lung signs; his white blood count was 9,600. On October 25, the patient had rales in the second and third left interspaces, but the sputum was reported negative. On October 26, the sputum contained a type 33 pneumococcus, considered as a possible contamination. On October 27, type 18 pneumococcus was reported to be present in the The patient was immediately hospitalized; in forty-eight hours his fever responded to sulfadiazine and he made a complete recovery three days later.

Case 8.—This case represents a Rickettsial pneumonia due to typhus. Mr. M. S., aged 56, was admitted to the hospital on July 19, 1942, as a typhus suspect, with fever, headache, rash, and a palpable spleen. Two days later, a positive Weil-Felix reaction was reported. The patient expired on July 27, 1942. During life there were no lung signs and the x-rays were negative, but autopsy revealed small bilateral juicy areas of consolidation composed characteristically of many mononuclear cells with a few scattered polymorphoruclears.

#### Discussion

Recently there has been an increasing number of patients with nonbacterial pneumonias who have given no therapeutic response to sulfona-These patients present a definite clinical mides. picture: they do not appear sick, their pulse and respirations are not accelerated, but they have fever, headache, severe cough, and positive x-ray findings, with only few physical signs. causative agent is either a virus, Rickettsial body, or Toxoplasma. Interesting descriptions of these cases have been published by Reimann and Haven,7 Kneeland and Smetena,8 Longcope,9 Finland, 10 and others. A filtrable virus has long been suspected as the causative agent of this disease, because of its contagiousness, long incubation period, characteristic pathology, and the absence of bacterial pathogens. In many cases, however, attempts to isolate a filtrable virus from the blood, secretions, and lung have failed. According to Reimann,7 this may be due

to delay in examination, weak pathogenicity of the virus, or improper selection of experimenta animals. In some cases, Stokes<sup>11</sup> and his coworkers identified a virus which was virulent for ferrets. Weir and Horsfall<sup>12</sup> have isolated a virus from some cases of pneumonitis which produced the disease in the mongoose. Adams<sup>13</sup> et al. also described a viral type of pneumonia in infants characterized by cytoplasmic inclusion bodies. The most common causative agents, however, are the viruses of influenza A and B, and the psittacine virus. They all pass through a coarse filter, have no vectors, and infect the victim directly without producing a rash.

Any viral pneumonia may become secondarily infected later in its course by the staphylococcus, streptococcus, pneumococcus, influenza bacillus, or other bacteria. This is particularly true in influenzal pneumonia, the diagnosis of which is established by the simultaneous recovery of both the bacteria and the virus (Finland). The influenzal virus is identified by its virulence for ferrets, which, in turn, produces a homologous

Psittacosis is caused by a specific virus which is transmitted from sick parrots to man, producing a highly fatal contagious pneumonia. This is associated with leukopenia and a characteristic monocytic reaction in the lungs. The virus may be recovered from the sputum of the victim and a positive complement-fixation reaction is used for diagnosis. The latter test was found positive in 4 out of 8 pneumonitis cases recently reported by Reimann<sup>15</sup> in which the patients had no history of contact with sick birds. In these cases, this was construed as evidence of infection with a psittacine-like virus of lymphogranuloma venereum, meningopneumonitis, or choriomen-

ingitis.

The Rickettsias of typhus, Rocky Mountain spotted fever, and Q fever may also produce atypical pneumonias. These bodies are transmitted by vectors and the disease in man is usually associated with a rash.

Virus pneumonia is a definite disease entity with characteristic findings. It is highly communicable by direct contact and usually has a long incubation period (about sixteen days). A sister of the patient in Case 1 and the physician who attended Case 6 contracted the disease sixteen days after contact. The following family epidemic also came under my notice. Mrs. B. D., from Brighton, transmitted viral pneumonia to her son, B. D., sixteen days after contact. Her sister, Mrs. F. A., contracted severe viral pneumonia fifteen days after nursing B. D., and she in turn transmitted the disease to her husband, A. A., eighteen days later.

Clinically, there are three types of viral pneu-

#### MÉNIÉRE'S SYNDROME—ITS MECHANISM AND MANAGEMENT

MILES ATKINSON, M.D., F.R.C.S. (Eng.), New York City

THE cause of the attacks of paroxysmal L vertigo associated with progressive deafness and tinnitus which Ménière first described and differentiated from the "cerebral apoplexies" with which they had previously been classed, has always been a mystery. In recent years, renewed interest has been shown in this condition, and several theories have been put forward to explain them, none entirely satisfactory. I do not intend to discuss these views here, but to limit myself in this paper to my own personal observations both as to mechanism and management.

#### The Mechanism

The mechanism of Ménière's syndrome, if my observations are correct, is a vascular one. The syndrome may be produced, however, by either of two different vascular disturbances, one a primary vasodilation and the other a primary vasoconstriction. Therefore if patients presenting this syndrome are to be treated logically and effectively, they must be separated first of all into their respective groups. This is done by determining their sensitivity to histamine.

The Histamine Skin Test.-Histamine is a powerful vasodilator substance. If it is introduced in minute quantity into the skin of a normal person by pricking with a needle through a drop, there ensues what Lewis has called "the triple response." First there is a dilatation of the minute vessels in the area; this is followed by a wheal; and then, provided that the sensory nerves of the area are intact, a widespread flare develops around the site of introduction. It must be emphasized that this is a normal reaction, that everybody responds to histamine injection in this way though in variable degree. To differentiate normal from abnormal response with certainty, a larger quantity must be used, and this is given by intradermal injection.

When 1/10 cc. of a 1:20,000 solution of histamine base\* is injected into the skin of a normal person, a white bleb is produced which within a few seconds is surrounded by a red ring, this repre-

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It is important to note that the strength of the solution is determined in terms of histamine base. The different salts of histamine vary in this respect. The writer uses histamine dibydrochloride, which contains 0.57 mg of base to each 1 mg. of the salt. Dilution of 1 cc. of a 1:1,000 solution of the salt with 9 cc. of distilled water produces a solution of approximately 1:20,000 of histamine base.

senting the first part of the triple response. Very rapidly the white bleb assumes a yellowish tinge, due to the extravasation into it of serum from the dilated vessels, the second part of the response. At the same time the third part of the response begins to appear: the surrounding

For the purpose of this test, it is essential that the injection be made always in the same situation. The skin in different parts of the body gives markedly different degrees of response.1 My own practice has been to use always the volar surface of the forearm just below the elbow, and the criteria to be given refer to this location. Furthermore, the complexion of the subject must be borne in mind in judging the results, for persons of fair complexion react more strongly than those of dark.

The criteria of response to an injection given as described have been found to be as follows: The normal reaction is that in five minutes a wheal with definite edges is produced, 1/2 to 1/2 an inch in diameter, with a surrounding flare of 1 to  $1^{1}/_{2}$  inches (Fig. 1). This lasts for a further five to ten minutes. Then the wheal begins to fade into the surrounding flare, and at the end of 30 minutes, the wheal has disappeared and the flare is rapidly fading or may also have disappeared.

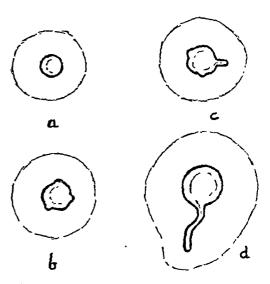


Fig. 1. Cutaneous reactions to the intradermal injection of 0.0057 mg. of histamine base. figure, a and b indicate negative reactions; c shows a doubtful reaction, and d, a positive reaction.

sufficient blood concentration demands an increased intake of sulfonamides either by mouth, vein, or rectum. In cases of overwhelming infection or bacteremia, a combination of both serum and chemotherapy should be used. Localized, confined pus requires surgery, since the sulfonamides are inactivated by the paraaminobenzoic acid produced by the pus cells. bronchial obstruction persists, it should be relieved by bronchoscopy, topical astringents, and bougies.

From the standpoint of prognosis, the severity of a pneumococcal infection is proportionate to an increase in the circulating polysaccharides, while increased resistance of the patient is determined by Sabin's agglutination test or by the Francis skin test. 19

Finally, failure of response to adequate sulfonamide therapy, unaccounted for by previously mentioned reasons, should lead one to suspect the existence of a viral pneumonia. In these cases, the drug has been ineffective all along, and should be discontinued.9 Otherwise, it may also produce toxic effects, and the patient would then be suffering from two diseases instead of one. No specific treatment has as yet been developed for primary virus pneumonia. The management is only supportive and symptomatic, consisting of oxygen, steam inhalations, expectorants, and codeine. In respiratory embarrassment due to pulmonary edema or bronchial obstruction, Baruch<sup>20</sup> recommends various forms of inhalation therapy. Oxygen, with or without helium, under pressure is used for the relief of pulmonary edema. Inhalation of vaporized solutions of adrenalin and synephrin sprayed by oxygen under pressure relieves bronchial spasm and loosens tenacious mucus. Postural drainage and aspiration of exudate may be used, especially in infants.<sup>13</sup> If the viral pneumonia is later complicated by a secondary bacterial infection, chemotherapy is then definitely indicated. 10 Throat gargles and sprays are advisable prophylactically and therapeutically.

#### Summary

The necessity for an early bacteriologic diagnosis is again emphasized, not only for typespecific pneumococci, but also for other causative agents. Use of the sulfonamides should be started in every case of pneumonia even before the laboratory report is obtained. If the characteristic curative response does not occur within forty-eight hours, the reasons therefore should be determined and the patient should be treated accordingly.

2. The differential clinical features and the treatment of the various types of pneumonia

have been discussed.

Several case reports have been presented indicative of atypical and virus pneumonia.

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## CHINA HOSPITALS HAVE ODD HEATING SYSTEM

An ingenious heating system has been devised by the International Peace Hospitals in China's remote Northwest region to take the place of non-

existent furnaces. Open charcoal braziers, used by most Chinese houses in this area, generate too much dust and gas for them to be practical in hospital wards or operating rooms. So the Peace Hospitals, financially

aided by China Aid Council of United China Relief, have built special huts for wards and operating rooms. The south walls of each are made entirely of glass so as to admit the maximum of warmth from the winter sun. Under the floor of each hut is 2 brick "k'ang," or box-like stove, which, in effect, transforms the room above into a sort of oven. Virginia Medical Monthly

Horton.<sup>2</sup> For myself. I have been afraid to use this method, having been informed of two cases in which a fatal outcome was the result of giving a single large dose of histamine as a diagnostic test for gastric function, and of another in which catastrophe was narrowly averted. I regard histamine as a potentially dangerous drug, to be used with the circumspection accorded to all tissue poisons.

March 1, 1944]

The results of histamine desensitization in this group, obtained by the method described, have been eminently satisfactory. Of 14 cases which have been under observation for a sufficient time to judge of results, all have been relieved of their attacks. I hesitate to say this, for it seems too good to be true. Nevertheless, to date it is true, and I have therefore come to regard the placing of a patient in this group as indicating a prognosis as much as a diagnosis. It is interesting to note, too, that these patients regain a general sense of well-being as their treatment progresses.

On the other hand, misgroup the patient, use histamine for a patient who actually belongs to the group of vasoconstrictor patients, and not only will he not respond except for an initial period of temporary improvement due to the vasodilator effect of histamine, but he will be made more resistant to treatment along the correct vasodilator lines, as I have shown elsewhere.4 It is therefore of the first importance to be sure of a true assessment of the histamine skin test.

(b) The Vasoconstrictor Group: The large majority of Ménière patients fall into this group. Until such time as the cause or causes of vasospasm are better understood, the members of this group can only be treated empirically by vasodilator drugs. Of these, nicotinic acid has proved the most effective in my hands. It can be given over long periods of time without producing resistance to its action, and has none of the uncomfortable side-effects from fall of blood pressure which result from the administration of acetylcholine or the nitrites.

Here I would insist that it is nicotinic acid that must be used, not the amide. The acid has a vasodilator action, and it is for this reason that it is used, not because it is a vitamin. It is this vasodilator action which is essential. The amide does not produce this vasodilator action and, however effective it may be as a vitamin, it is no substitute for the acid as a vasodilator. It fails every time, as some of my patients know to their cost who have been persuaded to use the "flushless" compound. It is the flush that

The general plan is to start with injections,\*

at first a few intravenous, followed by a period of intramuscular, more or less prolonged according to response. The latter the patient can be taught to give himself. The object is to build up to the limit of individual tolerance, to maintain dosage at this maximum level until control is established, and then gradually to diminish to maintenance level. There is no hard and fast rule; each case is an individual experiment in titration.

Eventually the patient graduates from injections to oral administration, and this may have to be kept up for a long period of months or years. If a relapse or a threatening of relapse occurs, dosage must be jumped for a time, oral administration must be replaced by injections. intramuscular or even a few intravenous, and then again diminished when the acute phase has passed.

But in more detail, the routine which I adopt and which must be varied, as I have said, according to individual requirements, is somewhat as follows: A trial intramuscular injection of 25 mg. is given to determine the degree of reaction. This is followed by the same, a larger, or a smaller dose intravenously, according to reaction. It is then increased by 5 mg. at a time every second day for two weeks, to 50 mg. This is a fair average. Patients in the younger age group often take and require more; those in the older age group with less resilient vessels may not tolerate so much and must always be handled with considerable care. I cannot be too emphatic upon the necessity of cutting one's coat according to the cloth of the individual. In the early stages no one but the physician in charge can take the responsibility of judging dosage.

After the intravenous injections, the patient is taught to give himself daily intramuscular injections of the same or a gradually increasing dosage, according to circumstances. At the same time he takes 1, 2, or more tablets by mouth, usually of 50 mg. each, occasionally only 25 mg., again according to tolerance. Ultimately, after a period of time which cannot be foretold but which may often be several months, he reduces to 4, 3, 2, 0 injections a week and continues with tablets, also over a period which cannot be fore-The individual attention of the physician to the individual patient is essential to success. Nothing else will compensate for this.

Reason for Parenteral Therapy: The reason for the insistence on injection is a pragmatic one: that patients have been found to do better on this regime. Cases which have not responded to oral administration have improved and done well on parenteral. Presumably this is because in some people the drug is poorly absorbed from the stomach. A few, a very few, react satis-

The nicotinic acid for parenteral administration used in his investigation was supplied by Abbott Laboratories.

The reaction of the sensitive person is more considerable in extent and duration. At the end of five minutes the wheal measures <sup>1</sup>/<sub>2</sub> to <sup>2</sup>/<sub>4</sub> of an inch in diameter, the flare 1<sup>1</sup>/<sub>2</sub> to 2 inches. It is still present in full force for twenty minutes and is only beginning to fade after thirty minutes have elapsed. But the most important difference of all is in the development of at least one long trailing pseudopodium, often as much as 1<sup>1</sup>/<sub>2</sub> inches in length, which persists and fades with the wheal. Without this, a positive abnormal reaction cannot be adjudged.

Intermediate appearances are sometimes seen. In such a case, a second test is made with double the dose, allowing an interval of at least forty-eight hours between the two tests for the refractory period. If still no true pseudopodium appears, the test is adjudged negative.

By this means, patients with Ménière's syndrome can be divided into two groups: those giving a positive reaction, or primary vasodilator cases, and those giving a negative reaction, or primary vasoconstrictor cases. The biochemical implications of this test are still obscure. Its validity, however, has been proved by the fact that cases falling into the vasodilator group are made worse by vasodilator drugs such as acetylcholine or nicotinic acid and improved by vasoconstrictor drugs. The opposite applies to vasoconstrictor cases. For the details of the experiments which were made to determine this point, reference must be made to another paper.<sup>2</sup>

#### The Management

General Management.—I put this first because it is of as great importance as specific treatment and yet is often neglected. Almost without exception, sufferers from this condition are frightened. They have good reason to be. It can be no pleasant state to live in, to know that at any moment you may be struck by a thunderbolt of acute vertigo which renders you incapable of navigation, so that you reel about in the street or some such public place seeking for support. Add to this the concomitant distresses of pallor, sweating, nausea, vomiting, even incontinence, and it is small wonder that many patients become asocial and develop into hermits, refusing to visit their friends, to go out unaccompanied, or even to go out at all.

Others are frightened lest they have something worse than appears, and for this the neurologist has to bear his share of blame. All too often, they have been told of the possibility of a tumor, and this regardless of the fact that paroxysmal vertigo is a rare accompaniment of angle tumor, and an incomplete hearing loss associated with it rarer still. The earliest sign of an angle tumor, apart from the eighth nerve involvement, is a

diminution of the corneal reflex. Without that, I do not believe that it is justifiable so much as to moot the possibility of a tumor to the patient, still less to institute the more or less elaborate procedures necessary to rule it out. To speak of the possibility of brain tumor may seem a small matter to the trained neurologist; it means much more to the patient, who has visions of a brain operation or of losing his mind. I wish that those who so lightly speak of "tumor" could see some of the frightened results of their thoughtlessness that I see.

What Ménière patients need is reassurance, a reassurance which can legitimately be given them. They need an explanation of the cause of their distresses and to be given a confidence in the future. They need their fears dispelled. Persuade them to treatment, let them understand that gradually but with reasonable certainty their vertigo can be overcome, and half the battle is won. I say that they can legitimately be given assurance, and I think that the results of treatment after accurate grouping will show that this is so. But I cannot insist too much that each Ménière patient is an individual problem, whether from the viewpoint of general or spēcific management.

2. Specific Management.—(a) The Vasodilator Group: The members of this group comprise one in five or less of all cases—positive histamine skin tests are the exception, not the rule. When they arise, however, the prognosis is eminently good.

My own practice in this group is to desensitize to histamine by a slow method such as one uses in giving a vaccine. Following the skin test, the same dose is given subcutaneously and increased by doubling the dose until the point of reaction is reached, as shown by marked flush and headache. This dose is then repeated, after which increase of dosage is more gradual, the amount of increase depending upon individual response. Maximum dosage in my hands has never exceeded 0.5 mg. of histamine base (1 cc. of a 1:1,000 solution of histamine dihydrochloride), and some will not tolerate as much. The maximum dose is then repeated at weekly intervals for four weeks. A second course may be necessary after an interval of three to six months, and a third sometimes after a longer interval.

In the occasional instance, regular small doses of histamine are required at weekly or bimonthly intervals, to keep the patient well. I have one such case and I have been informed of one or two others. They are the exceptions.

I have had no experience of Alexander's method of rapid desensitization to histamine by intravenous infusion, as described by Shelden and

#### REPORT OF AN OUTBREAK OF GONORRHEA AT A BOYS' SCHOOL

ROBERT S. WESTPHAL, M.D., Albany

REPORTS of outprease of section in schools or similar institutions are D EPORTS of outbreaks of gonococcal ininfrequent: therefore it would seem to be of interest to report one such outbreak involving 17 out of 67 individuals in a boys' school. Also, the problem of homosexuality is generally considered as likely to exist in any place where members of one sex are living together, but the subject is not frequently discussed in the literature in common circulation. During the course of this investigation, it was discovered that the practice of rectal sodomy was apparently quite common. example, definite information was obtained which indicated that at least six such episodes involving approximately 20 boys had occurred between December 20, 1942, and January 13, 1943.

The school in question was established by a few philanthropic individuals and organizations for the rehabilitation of colored boys who had committed misdemeanors or who were underprivileged in their home environment and were of such an age as to be psychologically inadaptable to incarceration in a reformatory or other penal institution. In brief, the procedure for admission is sentence by the Children's Court of New York City. the Judge remanding the boys to the school for periods of time which may vary considerably. Among the present population of 69 boys, one has been at the school for four years and one for three but the majority for less than two years. The boys vary in age from 9 to 16 years, with only two over 14 and 58, or 84 per cent, being between 10 and 13 years of age. At the time of the outbreak the school population was 67, 2 more boys having been admitted on January 22.

As a consequence of the inaccurate memories for dates and events on the part of boys of this age and with their degree of mentality there may be slight inaccuracies in the data which are to follow, especially when they are concerned with dates. As a background to the sequence of events which led to the necessity for this investigation, it may be well to say that betweeen December 20 and 23, 1942, it is definitely known that two instances of the practice of rectal sodomy occurred, at least 8 boys being involved in these two episodes. This information is presented to indicate the fact that this practice was not unknown in the school before the outbreak of gonococcal infection. However, there had never been any previous complaints which would indicate the possibility of urethritis arising from this practice.

On December 24, 1942, 45 boys went away for a Christmas vacation. They, in addition to 2 new boys (Table 1, Cases 4 and 5), returned to the school on December 30. The routine progressed as usual until January 14, 1943, at which time the tranquility of the school was disrupted by the appearance at the infirmary of a boy complaining of urethral discharge and burning upon urination. Within a short time two more boys reported to the infirmary with similar complaints. Careful questioning by the attending physician at the school indicated a problem of rather large extent, so he applied to the State Health Department for assistance.

The facilities of a nearby city laboratory were placed at our disposal. Detailed history and physical examination forms were devised and the investigation was begun. An attempt was made to obtain a fairly complete past history from each boy, but this effort was soon discarded as relatively worthless because of the aforementioned inaccurate memories of the boys. Genitourinary and anorectal examinations were then performed on all members of the school. When an exudate was noted upon stripping the urethra, a specimen was obtained with a sterile applicator and a spread was made upon a glass slide. Another specimen was placed in a tube of broth medium for cultural examination. Similar specimens were obtained from the proctoscopic examinations. A prostatic massage was performed on all the boys, with the exception of those who had symptoms or clinical evidence of acute urethritis, and then, since in boys of this age it is difficult to obtain sufficient prostatic secretion to cause it to be discharged from the urethral opening, the patient was asked to urinate into a sterile glass container, thereby washing out of the urethra any secretion from the prostate gland as well as any pus which may have been present in the channel. Specimens were taken between 9:00 and 11:30 A.M. and were carried immediately thereafter to the laboratory, where slides were stained and examined, specimens in broth were cultured, urine samples were centrifuged, and spreads and cultures were made from the sediment. Specimens taken between 2:00 and 4:30 P.M. were treated likewise. Thus, no specimen had stood more than three hours before the laboratory procedure was begun. The cultures made on the first day were upon

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factorily to tablets from the start, but the great majority do not. My own practice, therefore, is to insist on injections, except sometimes in mild cases when I give tablets a trial from the beginning, but always with the warning that they may not act and that injections may have to be instituted.

3. Additional Measures.—Since these observations point to Ménière's syndrome as being a manifestation of peripheral vascular disease. adjuvant measures appropriate to such a condition should be instituted at the same time. The most important of these is to place a ban upon smoking. In some instances this and no more has been sufficient to abolish attacks. proof of its efficacy is provided by the observation made for themselves by those of my patients who when they started smoking again found that the attacks recurred, and that they were again abolished by refraining. The cessation of attacks was thus proved to be a true effect, and not merely coincidental. Other general measures which are helpful are limitation of carbohydrate intake, graduated exercise, alternating warm and cool showers, an ordered and unemotional life, so far as this is possible in these tempestuous days.

It is important to explain at the beginning that this treatment produces no immediate and dramatic results. It is a slow process which leads to gradual relief, not miraculous cure. Perseverance and persistence are necessary both in patient and physician. Neither must be disheartened by setbacks, which almost invariably occur. I tell patients that when a relapse takes place, as it almost undoubtedly will, when another attack of vertigo occurs, then is the time to increase treatment, not to discard it. What they may look forward to with reasonable confidence is a gradual, even rapid diminution in the severity of the attacks and a gradual increase in the intervals between them. Ultimately after a few months or perhaps a year, vertigo and even mild dizziness will disappear. Tinnitus will often be improved, occasionally disappear or become inconspicuous, sometimes remain to plague Deafness usually rethem whatever is done. mains unchanged, though its progress is arrested. Complete failure, at least as regards attacks of vertigo, is rare in true Ménière cases.

But even when the patient is stabilized, when his vertigo is abolished or controlled by treatment, often he still experiences periods of discomfort or ill-being, periods which he recognizes as times when before treatment he would be having attacks, a sort of recurring temporary ebb

of health. What may be the explanation of this I do not know. Perhaps it is some metabolic disturbance, perhaps it is occasioned by some low-grade infection of which we have no knowledge, or perhaps by the same factor, exaggerated, which conditions the ebb and flow of health which even normal persons experience. That is a matter for the future. What I know for certain from my own experience is that in the great majority of persons relief from attacks can be envisaged with some assurance, even if absolute cure of the condition is as yet beyond our means.

The results of such considered individual treatment are encouraging. Referring only to those cases which have been under observation sufficiently long to judge of results in view of the liability to recurrence, and referring also only to attacks of vertigo and not to deafness or tinnitus, I have 49 cases at present available for assessment (end of 1942); 20 have been entirely relieved over periods of not less than six months and up to two years; 25 have been improved and are improving, which means to say that their attacks are controllable, are less in frequency and severity, or have been abolished but for insufficient time to qualify for the higher class; only 4 have been failures. These figures seem reasonably satisfactory, at least to me, and are definitely better than those obtainable in my hands by other methods. Indeed, they are better than they look, for the results have been conservatively assessed and several of the improved group seem likely to qualify in time for the relieved, judging by their progress.

#### Conclusions

1. Cases of Ménière's syndrome can be divided into two groups by means of an intradermal test of histamine sensitivity.

2. These two groups own a different physiclogic mechanism, the one primary vasodilator

the other primary vasoconstrictor.

3. Treatment, if adopted along the lines indicated in each group according to its physiclogic mechanism, has proved reasonably successful.

4. Relief of vertigo at least can be envisaged, but only by individual attention to the individual patient.

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Case 35 also had active contact with Case 4 at about this time. About January 12 or 13, Case 3 had active contact with Case 4, and Case 9 had active contact with both Cases 4 and 5. Shortly after December 30, when Cases 4 and 5 were admitted to the school, an extensive episode occurred in the shower room. At this time, it was stated, Case 4 was a passive partner to 7 other boys, and Case 5 was a passive partner to 4 others, but since the 2 passive partners were not yet well-acquainted with the other members of the school, it was impossible to obtain the names of the participants. It would be reasonable to assume that there were numerous other affairs about the school between January 1 and January 13 concerning which we do not have definite information. A study of the dates of known contact in relation to dates of onset of infection as obtained from reports indicates that at least 5namely, Cases 3, 9, 10, 12, and 35-were infected by rectal contact with Cases 4 and 5.

It should be noted that the onset of symptoms in Case 15 was said to be about January 13, in spite of the fact that the patient had had contact with the girl about December 29, fifteen days before the stated date of onset. According to Pelouze, such delayed periods of incubation are probably more apparent than real. In these cases, he suggests the possibility that the disease was present in such a mild form that the patient was not aware of it until he indulged in something that acted as an exciting factor.3 The same author states further that when one's own gonococci are grown on another's mucous membrane and reacquired they usually set up an active infection.4 In view of these suggestions of Dr. Pelouze, it would seem to be within reason to assume that Case 15 could have contracted an inapparent infection from his contact with the girl, subsequently transplanting the organisms onto the rectal mucosa of Cases 4 and 5, five days after contact with the girl. This act of supplying the organisms with a new culture medium on January 3 may have increased their virulence so that when Case 15 was exposed to the activated organisms a week later, on January 10, when he again had contact with Cases 4 and 5, it would be possible that a clinical infection would result.

On the other hand, some authorities are of the opinion that an incubation period of two weeks is quite reasonable, and perhaps this would be a more simple and logical conclusion.

Cases 2, 10, and 15 had already received about 4 Gm. of sulfathiazole by mouth prior to the date of examination. In spite of this, Case 2 had positive laboratory findings.

## Control Measures Instituted

All the hoys who had a history of acute ure-

thritis, in addition to those who denied infection but had positive laboratory findings, were isolated in one large ward with one of the school counsellors as a guard. The patients with clinical evidence of proctitis were isolated in another room. Because of the possibility of the existence of symptomless carriers<sup>1,2</sup> and in order to prevent any further spread of the infection by such individuals, it was decided to administer sulfathiazole to all the members of the school. This was done with a dosage of 2 Gm. daily by mouth for ten days.

All patients who had laboratory findings to the extent of gram-negative intracellular or extracellular diplococci or simply pus in any laboratory specimen have had a minimum of three negative clinical and laboratory examinations at subsequent dates. No new cases appeared after January 15.

#### Conclusions

- 1. We have reported an outbreak of gonococcal infection in a school for colored boys in which 17, or 25.4 per cent, of the 67 individuals in the school were infected.
- 2. Aside from the initial case, all the patients having acute gonococcal urethritis were believed to have obtained their infection from contact with patients who had gonococcal proctitis.
- 3. Of the 17 cases, 6 were confirmed by laboratory tests, diagnosis was made upon history and clinical findings in 6 others, and in the remaining 5 cases by clinical evidence alone.
- 4. Two grams of sulfathiazole daily by mouth for ten days proved to be adequate for controlling the existing infections and for prevention of further spread.

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#### Discussion

Dr. James H. Lade, Albany (by invitation)—An interesting aspect of institutional epidemics of gonorrhea such as this which is so ably described by Dr. Westphal is, I think, the parallel to the problem in the general population. If we disregard the esoteric mode of transmission, we have what may be termed a problem in epidemiology in vitro: a controllable population seeded to an unknown extent with a known organism. We are aware of a certain number of definite cases of infection, suspect that other symptomatic cases exist in the population, and, as the investigation proceeds, discover a number of carriers who are largely asymptomatic. The difficulties of clinical diagnosis are likely to be enhanced by the unreliability of the stained film

TABLE 1.—Total Cases of Gonococcal Infection at a School for Colored Boys. January, 1943 (Key: Pos. = gram-negative intracellular diplococci; ? = gram-negative extracellular diplococci; NS = no specimen; Neg. = negative.)

		Symp- toms of Ure-	Approxi- mate Date	Laboratory Findings (Smears)———Urethral Urine						
Case				Ex	udate	Sed	iment	R	ectal	•
No.	Age	thritis	of Onset	G.C.	Pus	G.C.	Pus	G.C.	Pus	Clinical Findings and Remark
2	12	+	Jan. 11	Neg.	Pos.	Pos.	Pos.	Neg.	Neg.	Exudate with enlarged inguinal nodes and seminal ves
9 1	10 10	++	Jan. 12 Jan. 13	NS ?	NS Neg.	? Neg.	Pos. Neg.	Neg. Neg.	Neg. Neg.	cles Enlarged inguinal nodes Exudate and enlarged ingui
12 15* 3	12 13 11	+ + +	Jan. 13 Jan. 13 Jan. 14	NS Neg. Neg.	NS Pos. Neg.	Pos. Neg.	Pos. Pos. Neg.	Neg. Neg. Neg.	Neg. Neg. Neg.	nal nodes Enlarged inguinal nodes Enlarged inguinal nodes Enlarged inguinal nodes Exudate and enlarged ingui
10	11	+	Jan. 14	Neg.	Pos.	Neg.	Pos.	Neg.	Neg.	nal nodes  Exudate, enlarged semina  vesicles, and tender pros
7 31	10 11	+	Jan. 15 Week of Jan. 10 (?)	NS Neg.	NS Neg.	Neg. Neg.	Neg. Neg.	Neg. Neg.	Neg. Neg.	tate Enlarged inguinal nodes Slight exudate
35 32 4	15 12 10	Denied Denied Burning on uri- nation	••••	NS NS NS	NS NS NS	Pos. Pos. Neg.	Pos. Pos. Neg.	Neg. Neg. Pos.	Neg. Neg. Neg.	Neg. Neg. Enlarged inguinal nodes and clinical proctitis
67 67	9 13	None None	••••	NS Neg.	NS Neg.	Neg. Neg.	Neg. Pos.	? Neg.	Neg. Neg.	Clinical proctitis Exudate and enlarged vas and
53 8	12 11	None None	****	Neg. NS	Neg. NS	Neg.	Neg. Pos.	Neg. Neg.	Neg. Pos.	epididymis Exudate present Very tender prostate and
<b>5</b> 5	13	None		Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	clinical proctitis Exudate present

<sup>\*</sup> Positive culture from urethral exudate.

McLeod's medium, and the remainder were done upon a mixture of bactoproteose agar and hemoglobin solution prepared in the laboratory.

A list of the cases with their laboratory and clinical findings is presented in Table 1.

#### Comment

Since one of the oldest boys had recently left the school, 66 others who were present within the time limits of the outbreak—in addition to two new boys, making a total of 68—were examined. As indicated previously, all the boys in the school were included, especially because of the knowledge of the possible existence of symptomless gonococcus carriers.<sup>1</sup>, <sup>2</sup>

Table 1 indicates that 9 boys complained of symptoms of acute urethritis, that 3 denied the existence of symptoms but urethral exudate was found upon examination, and that in 2 who denied a history of urethritis no clinical evidence of infection was found but laboratory specimens were positive for gonococci. Therefore it could be considered that there was a total of 14 cases of genitourinary gonococcal infection. In addition to these there were 3 cases of clinical proctitis, one with gram-negative intracellular diplococci and 2 with gram-negative extracellular diplococci in the rectum. Thus, there was a total of 17 cases of gonococcal infection among 67 boys, an incidence of 25.4 per cent. Of these 17 cases, 6 were confirmed by laboratory tests, in 6

instances diagnosis was made upon history and clinical evidence, and in the remaining 5 cases on clinical evidence alone. Gram-negative extracellular diplococci were found in the urethral exudate or urinary sediment in 4 cases, 2 of these being included in the 5 cases that were diagnosed upon a basis of clinical evidence alone. Two other boys proved to have gram-negative extracellular diplococci in the rectum, but these are not included in the above rate because the bacterial flora of the rectum is so varied that it is not tenable to make a diagnosis of gonococcal proctitis simply upon demonstration of gramnegative diplococci, in the absence of any clinical evidence of infection.

#### **Epidemiology**

Considerably varied information was disclosed during the obtaining of histories from the boys. After deletion of much extraneous material the course of events seemed to be as follows: Case 15 admitted sexual contact with an older girl some time between December 25 and 30, 1942, probably about December 29. Five days later, on January 3, 1943, he committed rectal sodomy with Cases 4 and 5 acting in a passive capacity. Case 10 also had active contact with Cases 4 and 5 at about the same time. About January 10 Case 15 again had contact with Cases 4 and 5 and Case 12 had active contact with Case 4 and 5 and Case 12 had active contact with Case 35.

# SIMPLIFIED METHOD OF CONTINUOUS CAUDAL ANALGESIA IN OBSTETRICS

Julius A. Miller, M.D., New York City

ALTHOUGH it is not quite time to say that caudal analgesia in obstetrics has come of age, yet if one has used this method for delivery to any extent its benefits have become apparent. Its faults and dangers are few.

One of the most interesting aspects is the fact that with this method of delivery the mechanism of labor is definitely altered. The former mechanism of the passage of the fetus through the irregular birth channel no longer holds true. One is impressed by the relative unimportance of planes and axes and flexions and rotations.

While these factors undoubtedly do play a part in the eventual birth of the child, it is now but a minor part.

Due to the total flaccid paralysis maintained by continuous caudal analgesia, the progress of the fetal presenting part through the parturient canal is neither impeded nor aided by the soft parts.

In cases in which the fetus is in a roomy pelvis the accurate knowledge of the position is only academic; the fetal presenting part may rest on the pelvic floor in an anterior, posterior, or lateral position. There has been no resistance to its passage and therefore there may be very little or no internal rotation and very little molding.

The contractions of the uterus push the fetus to the perineum. There it rests until it is extracted with outlet forceps or is expressed by external abdominal pressure on the uterus.

The examinations to determine progress during labor present a new problem—that of the evaluation of the findings. Only with proper understanding of the paralytic condition of the pelvic soft parts and the perineal structures can the proper assay be made as to the point of descent of the presenting part in the pelvic cavity. In other methods of delivery, on rectal examination muscle and other tissue tonus, plus some resistance, voluntary and involuntary, on the part of the patient is encountered. The obstetrician unconsciously and automatically takes this into account. In caudal block analgesia the tissues through which the examination is made are soft, nonresisting, so relaxed that he is apt to imagine that the presenting part is at a much lower level than it actually is, and the cervical dilatation is therefore sometimes misjudged. In the first few cases delivered by continuous caudal analgesia I twice made the error of having the patient prepared for delivery, only to find on vaginal exam-

ination that the presenting part was still high, the cervix not completely dilated, and delivery hours away.

It may be added that cases which formerly went to ultimate extra- or intraperitoneal abdominal delivery because of an intractable, thick, undilated cervix will under caudal analgesia cause no more concern, for they will not exist. The cervix softens and easily stretches to complete dilatation. I would even suggest, when other methods are used and such a condition does arise, that caudal analgesia be tried before any other procedure is attempted to terminate the labor. A pleasant surprise will greet the obstetrician on the case.

With continuous caudal analgesia in normal cases, the woman in labor is not physically or mentally exhausted. The fetus, because there is no concerted action on it by uterine contraction, involuntary and voluntary pressure will not be damaged. Therefore, the cliché of masterly inactivity on the part of the obstetrician becomes an actuality. There is no danger of precipitated delivery with its concomitant perineal tears.

The original technic of Hingson and Edwards of caudal analgesia can be simplified by the use of a caudal needle adapter. Once in operation when the simplified method is used, any person trained in obstetrics can be entrusted to watch over the patient and to care for the continuance of the analgesia without fear of immediate or ultimate harm to mother or fetus.

This simplified technic is as follows:

Step 1: Using a 3 inch malleable needle with a Luer hub, the caudal canal is entered. Facility in getting the needle point into the canal can only be attained by constant practice, and every obstetrician should attempt caudal analgesia in all practical cases. No harm will be done if there is a failure, since other pain alleviants can be safely substituted in that event.

However, on the assumption that the needle is safely in the caudal canal, we come to Step 2: The stilet is removed and the needle hub is watched for evidence of any escaping spinal fluid. If fluid escapes, the needle is removed and the case considered not applicable for caudal analgesia. Should blood escape from the hub the stilet is reinserted and the needle gently moved to a new position. The stilet is again removed and the previous observations again made.

All conditions being favorable, we approach Step 3: The caudal adapter is fixed into the caudal and the culture as case-finding tools. We have, on the other hand, the advantage of a stable population in which therapy may be utilized at will and in which behavior is more controllable than it is outside the institutions.

Under such circumstances, the control of the outbreak is a foregone conclusion. It would certainly be possible to identify each case and carrier by repeated examinations and to render them non-infectious by the exhibition of the sulfonamides.

But if it is accepted that the examination of the stained film is unlikely to identify the gonococcus in more than 50 per cent of chronic cases, that cultures will not be positive in more than 65 per cent of clinical cases, and that the sulfonamides will fail to sterilize some 10 to 30 per cent of patients treated with a single course, the problem of complete eradication of infection from the group would require persistent and prolonged effort out of proportion to the gravity of the situation.

For the major difficulty in the control of gonorrhea, here as in general, lies in the chronic case, the gonococcus carrier. Without the aid of clinical symptoms, the screening of these individuals from a group is laborious and imperfect. But we have a therapeutic agent which is relatively innocuous in the dosages recommended for gonorrhea. It was safely exhibited in the entire group in this experiment. While such a device would be neither practicable nor desirable in the general population, we can tentatively identify some of the carriers by contact histories. When contact evidence is available, treatment may be instituted on this basis alone. If this procedure is followed, the laboratory tests may be postponed until the conclusion of therapy. I submit that these procedures must be followed if we are to control gonorrhea.

Specifically it is suggested that treatment of contacts of gonorrhea cases be initiated upon the basis of that evidence alone when laboratory data are not contradictory. This has particular application when the named contact is female. Specifically, treatment should be initiated when (1) the contact is named by more than one case with prior symptoms or subsequent onset; (2) a single contact is admitted by both parties; or (3) when clinical evidence is present in the named contact but laboratory tests are negative.

It is submitted that treatment upon the basis of this evidence is to the advantage of the contacts as well as in the interests of the public health.

#### Hotel Reservations

for the

## Annual Meeting of the Medical Society of the State of New York

Members of the Society who expect to attend the Annual Meeting May 8-11 should make reservations as soon as possible at the Hotel Pennsylvania in New York City.

Write to Mr. James H. McCabe, Manager, Hotel Pennsylvania, New York, New York. The following information concerning room accommodations and prices has been supplied by the Hotel:

Each room has a private bath—shower or tub and shower.

Room for one person per day—\$3.85, \$4.40, \$4.95, \$5.50, \$6.05, \$6.60, \$7.70.

Room for two persons per day (with double bed)—\$5.50 (shower only), \$6.05, \$6.60, \$7.15, \$7.70, \$8.25, \$8.80.

Room for two persons per day (with twin beds)—\$6.60, \$7.15, \$7.70, \$8.25, \$8.80, \$9.90.

Suite (living room, bedroom, and bath)—\$10.00, \$11.00, \$13.00, \$18.00.

For more than two persons in a double- or twin-bed room the extra charge is \$2.00 per day per person.

be prepared in a sterile packet in advance and so be ready for use at a moment's notice.

#### Comment

It cannot be emphasized too strongly that a few failures and an occasional disaster should not discredit the caudal analgesia method of delivery.

The cause of failure will always be found to be faulty technic or poor judgment. This occurs even in the simplest form of normal deliveries by any other method.

We owe a great and lasting debt to Drs. Hingson and Edwards.

> 1075 Park Avenue New York City

#### ARIZONA HAS NEW MEDICAL JOURNAL

A new state medical journal, Arizona Medicine, has just made its appearance. We quote the first editorial from the first issue—that of January— February, 1944;

#### "THE BIRTH OF Arizona Medicine

"With this issue Arizona Medicine, as official publication of the Arizona Medical Association, makes its debut among the medical journals of the other states of the nation.

"When the governors of Southwestern Medicine found it necessary to discontinue the publication of Southwestern Medicine for the duration, the Council of the State Society took the opportunity to publish a journal devoted entirely to the State of Arizona. While we regret deeply the loss of our many friends in New Mexico and El Paso, nevertheless the members of the State medical profession have long felt the need and necessity of its own journal Arizona Medicine will be published bimonthly. An attempt will be made to

reach all the physicians of the State who are in the armed forces. The curtailment of the scientific meetings of the State Society will hamper to some degree the securing of material for the pages of the journal. A letter has been written to as many of the members in the armed forces as we had addresses for, asking them for either a personal letter, or an account of their medical experiences to whatever extent they would be permitted to reveal them.

"As this first issue goes to press we have had little response so far. The problems of medical care have become such a major subject of discussion that there is scarcely an election, or a meeting of the national Congress, or the state legislatures, that new medical legislation is not proposed. It will be the policy of the editorial staff to keep the members of the State Society as fully informed as possible on the advent and progress of such legislations. The comments and criticisms of the members of the State Society will be welcomed."

#### PROBLEMS OF NUTRITION IN CHINA

China, being a vast country and composed of people of vastly different anthropological characters, religious, habits, and customs, living in widely different climates, cannot be treated as one sincle unit when problems of food consumption are single unit when problems of food consumption are studied. But one general statement can be made, and that is that the large majority of the population, even under prewar conditions, has suffered from the effects of insufficient food. According to any of the present standards of requirements, the food taken by the average Chinese has been inadequate. The most important reason for this is the low purchasing power of the average person or family. When the average income per person per year before the war (1937) was as low as 40-50 Chinese dollars (U.S. \$13-16) the purchase of an adequate amount of food becomes indeed impossible.

The inevitable consequences are general undernourishment, prevalence of deficiency diseases, lowered resistance against infections, and very much lowered expectation of life.—J. Heng Liu, M.D., and C. K. Chu, M.D., in Chinese M. J.

## DEFINITIONS FROM STUDENT NURSES' EXAMINATION PAPERS

"Adolescence is the age between puberty and adultery."

"Obesity is a surplus gone to waist."

"The spleen is an infernal organ of the body." "A skeleton is a lot of bones with the patient graped off."

"A pediatrician is a doctor who would be better off if he were a parent."

"A prostitute is a lady who has been tried and found wanton.'

"A pregnant patient is one who is heir-conditioned."—The Texas State J. M.

needle hub. This adapter is a 2 inch rubber tube closed flatly at one end, the other end having a metal needle adapter which fits securely into the hub of the caudal needle.

The injection of metycaine into the caudal canal brings us to Step 4: A 30 cc. syringe with a 1 inch, 22 gage needle is filled with 1½ per cent metycaine. The flat end of the rubber adapter is wiped with iodine or alcohol and the sterile syringe needle pushed through the flat rubber end into the lumen of the tubing. Slight negative pressure is exerted, which exhausts the air in the tubing and also determines whether there is any spinal fluid leakage. If none, 8 cc. of the metycaine solution is injected, with very little pressure needed. The syringe and the needle may now be withdrawn or left in place and held for a period of ten minutes to check on the possibility of spinal cord entry. After the ten-minute wait the remainder of the metycaine in the syringe (22 cc.) is slowly injected and the syringe with its needle is removed. The immobilizing of the caudal needle and adapter constitutes Step 5: The rubber adapter and the caudal needle hub are packed with sterile cotton so that only the flat end of the rubber tubing is left accessible. The whole is then pushed gently between the gluteal folds and strapped immovably to the buttocks. For added security a metal arch may be placed over this whole and strapped.

The parturient woman can now be made as comfortable as she desires. She may remain on her side, turn on her back, go to sleep, or read a book. The full effect of the caudal analgesia begins in five to fifteen minutes.

The time from the first full injection of 30 cc. until the necessity for the second injection arises may vary in individual women from thirty to seventy-five minutes. The need for a second and all subsequent injections is determined by the woman herself. When she complains of pain beginning in the suprapubic area the next injection is given.

As before, the flat end of the rubber adapter is made sterile with iodine or alcohol and the syringe needle is inserted through it into the lumen of the rubber tubing, and 20 to 25 cc. of metycaine is injected. At each injection negative pressure is exerted; this will determine any dangerous shift of the caudal needle, either through manipulation or the woman's movements.

As previously stated, since there is no hurry, rectal examinations can be made at infrequent intervals. The parity and the original stage of labor when the caudal analgesia was first instituted determine the frequency of these examinations. During the analgesia the woman has no urinary or intestinal urge and catheterization may

be necessary. This can be determined by routine abdominal palpation.

When the presenting part is found to be resting on the perineum and manual pressure on the abdomen when the uterus is not in contraction causes the perineum to bulge, the woman is ready to be delivered.

At this time the delivery room is made ready. The woman is placed on the delivery table, draped, and scrubbed. After these preparations have been completed one final injection of 25 cc. is made and then the caudal needle is withdrawn. The skin perforation is painted with iodine, wiped with alcohol, and the area sealed off with collodion.

For the actual delivery the use of outlet forceps is the rule. Episiotomy may or may not be necessary or may be made routine. The complete delivery with episiotomy and closure should normally take less than half an hour, though there is ample time for a longer procedure before the analgesic effects wear off. The bleeding is insignificant; the baby cries spontaneously. The placenta is expressed easily.

The repair of the episiotomy or any laceration is facilitated because of the marked reduction in bleeding. From this point on the postpartum care should be that of ordinary deliveries in the routine of the hospital or that of the attending obstetrician.

#### Summary

The simplified technic is safer and has broader uses in obstetrics:

First, because the possibility of contamination is lessened by the fewer steps and the fewer pieces of apparatus.

Second, because the dislocation of the needle from its proper position in the caudal canal is lessened because of the rigid packing and strapping, and is also safeguarded against by the metal arch covering the protruding parts.

Third, because the movements of the patient will not disturb either the procedure or the apparetus

Fourth, because the simplicity of the apparatus and the ease with which all the parts can be sterilized and made available add to the broader use of continuous caudal analgesia.

Fifth, because the simplified technic need not limit caudal analgesia only to the well-equipped hospital. The busy maternity hospital using the simple adapter method need not have dozens of pieces of complicated apparatus to autoclave, maintain, and have in readiness at all times.

Sixth, because of the economy of replacement of parts, each patient can have a new needle and adapter. This will reduce the possibility of needle breaks to the minimum. All the parts can

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synovitis, contusions and muscle strains, Volkmann's ischemia, bursitis, nonsuppurative teno-

synovitis, fractures, peripheral nerve injuries,

stiff joints, amputations, circulatory diseases of

the extremities, painful feet, backache, traumatic

cerebral spastic paralysis, gonococcic infections

resistant to chemotherapy, dementia paralytica,

cutaneous diseases, tuberculosis, and psychiatry

in being officially recognized by the War Depart-

ment as an integral and necessary part of the

medical armamentarium. It is hoped that phy-

Physical medicine, therefore, feels justly proud

clinics, crippled childrens' guilds, defense plants, and soon enough in Army and Navy personnel. The War Department has now created a "physiotherapy corps." Members of this corps who are graduates of approved physical therapy schools may become eligible for commissions in both the Army and the Navy. Finally, the most vital advance that physical medicine has made is, in my opinion, its success in ingratiating itself into specialties other than its good old friend and standby, orthopaedics.

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accepted by the Council of Medical Education

and Hospitals for training specially qualified

applicants. Surely these physical therapy tech-

nicians will provide the answer to the threaten-

ing dearth of technicians in civilian hospitals,

Notable progress has been made into such specialties as dermatology, psychiatry, neurology, ophthalmology, gynecology, syphilology, urology, otorhinolaryngology, anesthesiology, public health, internal medicine, and industrial accident surgery and general surgery. acknowledge that physical medicine has been an invaluable adjunct in the modern treatment of numerous conditions, diseases, and injuries. As a matter of record, when the division of medical sciences of the National Research Council was asked to furnish the medical departments of the United States Army and Navy with compact presentations of necessary information to be

As a consequence, these specialties definitely used by the medical officers of the Army and Navy in an emergency, a manual of physical therapy was prepared by the Division's Subcommittee on Physical Therapy and the Council on Physical Therapy erican Medical Assentint This tions. sical medicine will leave such a lasting impression upon these medical officers in military service that they will carry home with them its principles and practice. They will thereby be able to help decongest overcrowded military hospitals. This can be done when the war is over. Because of their familiarity with physical therapy, these medical officers would be qualified to recommend and supervise the continuance of such treatments when they meet our boys again back home. In conclusion, may I recapitulate? Modern warfare has changed the meaning of war casualties. Physical medicine was of service to medicine and surgery in the last war; it will be of greater service in this war because of the advances it has made in various fields, and because it has proved to be of invaluable service as a therapeutic adjunct to the various specialties. As a result, it is expected to aid in the treatment and final rehabilitation of all war casualties, both in the military service and at home. I should like to close by quoting a resolution from an editorial in last January's Archives of Physical Therapy, which is reassuring to both medicine and sur-

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# THE ROLE OF PHYSICAL MEDICINE IN TREATMENT OF WAR CASUALTIES

JOSEPH A. E. SYRACUSE, M.D., Buffalo

SINCE industry, agriculture, and even the government have readjusted themselves to the present critical war emergency and, moreover, have made provision for the subsequent reconstruction period, so must the medical profession regiment its scientific resources and energies in preserving and guarding the health of the nation, and also in providing for the treatment and subsequent rehabilitation of the civilian and military war injured.

During the first World War this task fell upon medicine and surgery, although physical medicine, which was then only vaguely known and generally misunderstood, helped to ease their burden, in a somewhat probationary capacity at first. However, as the war progressed and finally ended, medicine and surgery had acquired a worthy collaborator. Physical medicine found itself being adopted by the Army and Navy Medical Corps, since its principles and practices were being introduced and generally accepted in

military and civilian hospitals.

The role of physical medicine in treating war casualties, as one may easily deduct, will be farther-reaching in its scope than in the last war. Physical medicine has made important strides forward since then, and, having weathered that probationary stage, has now become "grown up" sufficiently, I hope, to assist medicine and surgery in coping with the devastating war casualties that accompany the tremendously grim strides of modern warfare. Today's meaning of war casualties is far more comprehensive than that of yesteryear, when we pictured the return of our maimed and disabled soldier boys; the picture stopped there. Today the picture is quite differ-What happened to those boys on the battle field then is now happening in the streets and backyards of our civilized cities. Yes, I say different, because this war is more devastating and more methodically inhuman than ever. To this picture we must now add casualties received by our boys in military maneuvers, in routine military training on land, in the air, and on the We have people injured in defense plants; we have the young and old, women and children, the inevitable victims of increasing traffic accidents. Our war industries necessitate such increases in traffic and transportation of workers and materials that accidents from these sources are also increased. We shall have in addition

those injured in blackouts and in air raids. Finally, we must include as a war-born casualty that of civilian illness which will present in this war a problem far greater than in the last. In this group will be adults and children. The adults, on the one hand, especially oldsters, will suffer from lowered resistance or exhaustion, call it what you may, because of long working hours or inability to adjust themselves to the irregular eating and sleeping routine which swing shifts require. As a result, coupled with the indifferent and irresponsible attitude of single women plant workers, the rate of illness and absenteeism will become alarmingly high. Others will suffer because of so-called multiple jobs. The children, on the other hand, will suffer, first, because they are left home by working parents, to the mercy of older children, indifferent hired help, or neighbors; second, because of poor housing conditions. We therefore must conclude from this that modern war casualties will give the medical profession on both the battlefront and the home front great cause to anticipate a huge task, and surely physical medicine will be expected to do its duty, as a "grown up," side by side with medicine and surgery.

When we consider the magnitude of these war casualties, what progress, you ask, has physical medicine made toward meeting this problem? Physical medicine has made notable advances in its various fields since the last war. It is better prepared, consequently, to be of greater service in treating modern war casualties. Two distinct advances have been, first, the introduction of newer modalities, such as short wave diathermy, inductothermy, refrigeration anesthesia for surgery of the extremities, internal radiant heat unit, pavex boot, the rhythmic constrictor, low-frequency current machines, etc.; and, second, treatments such as the Kenny treatment, fever therapy, iontophoresis, electric shock therapy, newer methods of approach in the treatment of painful backs, so-called progressive relaxation. and baths such as paraffin, whirlpool, galvanic, carbon dioxide, medicated, etc. At this point we must commend the excellent cooperation given by the leading manufacturers of physical therapy equipment and their physicists in physical therapeutic research.

A further step forward is demonstrated by the fact that a larger number of hospitals, even among the smaller ones, now boast of a physical therapy department, and some have even in-

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 4, 1943.

cluded an occupational therapy section. And there is the added fact that many physical therapy schools have been founded by leading exponents-schools which have been approved and accepted by the Council of Medical Education and Hospitals for training specially qualified applicants. Surely these physical therapy technicians will provide the answer to the threatening dearth of technicians in civilian hospitals. clinics, crippled childrens' guilds, defense plants, and soon enough in Army and Navy personnel. The War Department has now created a "physiotherapy corps." Members of this corps who are graduates of approved physical therapy schools may become eligible for commissions in both the Army and the Navy.

Finally, the most vital advance that physical medicine has made is, in my opinion, its success in ingratiating itself into specialties other than its good old friend and standby, orthopaedics. Notable progress has been made into such specialties as dermatology, psychiatry, neurology, ophthalmology, gynecology, syphilology, urology, otorhinolaryngology, anesthesiology, public health, internal medicine, and industrial accident

surgery and general surgery.

As a consequence, these specialties definitely acknowledge that physical medicine has been an invaluable adjunct in the modern treatment of numerous conditions, diseases, and injuries. As a matter of record, when the division of medical sciences of the National Research Council was asked to furnish the medical departments of the United States Army and Navy with compact presentations of necessary information to be used by the medical officers of the Army and Navy in an emergency, a manual of physical therapy was prepared by the Division's Subcommittee on Physical Therapy and the Council on Physical Therapy of the American Medical Association in response to that request. This manual is concerned with a list of conditions, diseases, and injuries prevalent among war casualties, and the physical therapeutic modalities employed in the treatment thereof. The list noted includes chronic arthritis and rheumatoid conditions, sprains and dislocations, traumatic

synovitis, contusions and muscle strains, Volkmann's ischemia, bursitis, nonsuppurative tenosynovitis, fractures, peripheral nerve injuries, stiff joints, amputations, circulatory diseases of the extremities, painful feet, backache, traumatic cerebral spastic paralysis, gonococcic infections resistant to chemotherapy, dementia paralytica, cutaneous diseases, tuberculosis, and psychiatry and neurology.

Physical medicine, therefore, feels justly proud in being officially recognized by the War Department as an integral and necessary part of the medical armamentarium. It is hoped that physical medicine will leave such a lasting impression upon these medical officers in military service that they will carry home with them its principles and practice. They will thereby be able to help decongest overcrowded military hospitals. This can be done when the war is over. Because of their familiarity with physical therapy, these medical officers would be qualified to recommend and supervise the continuance of such treatments when they meet our boys again back home.

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"As physical therapeutists we resolve to perfect further the scope and efficiency of our work so it may serve the largest possible number of those disabled by active warfare, in war work, and by the accidents and diseases of every day life. With the large-scale training of medical men and technicians, we look forward to an even larger increase in the general application of physical medicine than following World War I."

### RECORD NUMBER APPLIES FOR WORKING PAPERS

"Because of the unprecedented number of highpaying wartime positions open to minors during the past year, a record-breaking total of 173,067 children applied at Health Department mercantile clinics for 'working papers' during the first eleven months alone. This figure compares with 44,293

'working paper applicants' for the entire year of 1939 and gives some indication of the steadily increasing and highly regrettable migration of New York City school children from the classroom into industry."—From the New York City Health Department Annual Report

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JOSEPH A. E. SYRACUSE, M.D., Buffalo

SINCE industry, agriculture, and even the government have readjusted themselves to the present critical war emergency and, moreover, have made provision for the subsequent reconstruction period, so must the medical profession regiment its scientific resources and energies in preserving and guarding the health of the nation, and also in providing for the treatment and subsequent rehabilitation of the civilian and military war injured.

During the first World War this task fell upon medicine and surgery, although physical medicine, which was then only vaguely known and generally misunderstood, helped to ease their burden, in a somewhat probationary capacity at first. However, as the war progressed and finally ended, medicine and surgery had acquired a worthy collaborator. Physical medicine found itself being adopted by the Army and Navy Medical Corps, since its principles and practices were being introduced and generally accepted in military and civilian hospitals.

The role of physical medicine in treating war casualties, as one may easily deduct, will be farther-reaching in its scope than in the last war. Physical medicine has made important strides forward since then, and, having weathered that probationary stage, has now become "grown up" sufficiently, I hope, to assist medicine and surgery in coping with the devastating war casualties that accompany the tremendously grim strides of modern warfare. Today's meaning of war casualties is far more comprehensive than that of yesteryear, when we pictured the return of our maimed and disabled soldier boys; the picture stopped there. Today the picture is quite differ-What happened to those boys on the battle field then is now happening in the streets and backyards of our civilized cities. Yes, I say different, because this war is more devastating and more methodically inhuman than ever. this picture we must now add casualties received by our boys in military maneuvers, in routine military training on land, in the air, and on the We have people injured in defense plants; we have the young and old, women and children, the inevitable victims of increasing traffic accidents. Our war industries necessitate such increases in traffic and transportation of workers and materials that accidents from these sources are also increased. We shall have in addition

those injured in blackouts and in air raids. Finally, we must include as a war-born casualty that of civilian illness which will present in this war a problem far greater than in the last. In this group will be adults and children. The adults, on the one hand, especially oldsters, will suffer from lowered resistance or exhaustion, call it what you may, because of long working hours or inability to adjust themselves to the irregular eating and sleeping routine which swing shifts require. As a result, coupled with the indifferent and irresponsible attitude of single women plant workers, the rate of illness and absenteeism will become alarmingly high. Others will suffer because of so-called multiple jobs. The children, on the other hand, will suffer, first, because they are left home by working parents, to the mercy of older children, indifferent hired help, or neighbors; second, because of poor housing conditions. We therefore must conclude from this that modern war casualties will give the medical profession on both the battlefront and the home front great cause to anticipate a huge task, and surely physical medicine will be expected to do its duty, as a "grown up," side by side with medicine and surgery.

When we consider the magnitude of these war casualties, what progress, you ask, has physical medicine made toward meeting this problem? Physical medicine has made notable advances in its various fields since the last war. It is better prepared, consequently, to be of greater service in treating modern war casualties. Two distinct advances have been, first, the introduction of newer modalities, such as short wave diathermy, inductothermy, refrigeration anesthesia for surgery of the extremities, internal radiant heat unit, pavex boot, the rhythmic constrictor, low-frequency current machines, etc.; and, second, treatments such as the Kenny treatment, fever therapy, iontophoresis, electric shock therapy, newer methods of approach in the treatment of painful backs, so-called progressive relaxation. and baths such as paraffin, whirlpool, galvanic. carbon dioxide, medicated, etc. At this point we must commend the excellent cooperation given by the leading manufacturers of physical therapy. equipment and their physicists in physical therapeutic research.

A further step forward is demonstrated by the fact that a larger number of hospitals, even among the smaller ones, now boast of a physical therapy department, and some have even in-

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sufficiently long period, will cause excessive dryness of the skin. To offset this dryness, the dermatologist has recourse to liniments, the two most commonly employed being linimentum calaminae, N.F., and linimentum calcis, N.F., or carron oil. Both of these contain 50 per cent of oil, olive and linseed respectively. Linimentum calaminae has, in addition, 16 per cent of zinc oxide, which gives a protective and cooling effect to the material. Linimentum calcis has no solid ingredient, the linseed oil being mixed with an equal volume of lime water. Another liniment frequently prescribed by the dermatologist is linimentum saponis mollis compositum, N.F., known to the laity as tincture of green soap. As it is a solution of 15 per cent soft soap and 2 per cent juniper tar in alcohol, its properties are chiefly detergent and astringent.

Oils.—Curiously enough, oils are seldom used alone to make skin less dry but are combined in solid, semisolid, or liquid water-in-oil or oilin-water emulsions. Examples of these include unguentum aquae rosae, U.S.P., and other cold creams; in these, the oil employed is chiefly mineral. This oil, as well as olive, is also of great value in softening crusts to facilitate their painless removal. Olive oil and linseed oil are the emollients in linimentum calaminae and linimentum calcis, as we have already seen. Castor oil is only infrequently used in the treatment of dermatoses but plays an important part in the preparation of certain cosmetics. Thus, it is the ingredient in brilliantines which is responsible for producing sheen on hair and also is the solvent whereby the stain (tetrabromofluorescein and allied compounds) is dispersed evenly throughout the base of lipsticks, There is room for the wider use of oily bases in the treatment of disorders of the skin of hairy areas; ointments, now commonly used for that purpose, are very difficult to remove from these sites.

Pastes and Ointments.—Medicaments pass most readily through the skin and penetrate most deeply into the underlying tissue when they are suspended in fatty bases. This is due to the fact that the layer of greasy material retains the sneat and sebum in, and prevents an escape of heat from the underlying skin, thereby causing maceration of the diseased tissues and, consequently, their closer contact with the medicament.

Pastes and ointments are materials of buttery consistency in which solids (and, in the case of some ointments, liquids, also) are mixed evenly, without emulsification, with a fat. Pastes differ from ointments in that they have at least as much solid as fat, whereas ointments seldom contain more than 20 per cent of solid, and most have much less. Pastes, therefore, are of firmer con-

sistency than ointments, penetrate less deeply, yield medicaments less readily, and are more superficial in their action. They are of particular value in the treatment of subacute eczematous conditions in which slight oozing of serum persists. The capillary action of the high proportion of solid soon brings about drying of the surface. Ointments should never be used on oozing surfaces. They possess too little capillary action and also dam up secretions.

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The fatty bases are either petrolatum or lanolin or a mixture of both. Benzoinated lard is no longer used, as it has no special virtues and becomes rancid, and therefore irritating, somewhat readily. Petrolatum is a purified mixture of semisolid hydrocarbons obtained from petroleum. Its natural vellow to light amber color can be removed by treatment with animal charcoal. The resultant product is known as white petrolatum and has all the properties of petrolatum. It is used much more frequently than the yellow material, probably because of its more attractive color. Petrolatum, yellow or white, has two valuable properties-it does not combine with the medicaments incorporated in it and it does not become rancid. It has a disadvantage in that it will not mix with water in any proportion. renders it unsuitable for use in conditions where it is necessary to incorporate a watery material, e.g., Burow's solution, in an ointment. difficulty is overcome by the employment of adeps lanae, U.S.P., a purified, anhydrous, fatlike substance derived from the wool of sheep. It is a vellowish material composed largely of the higher solid alcohols, chiefly cholesterol, either in the free state or combined as the esters of the fatty acids present in ordinary fats. Adeps lanae, or anhydrous lanolin, mixes without separation and without losing semisolid consistency with 25-30 per cent of its weight of water, yielding an almost white product, adeps lanae hydrosus, U.S.P., or lanolin. Lanolin is employed as an ointment base either alone or mixed with an equal part of petrolatum. Anhydrous lanolin is too tenacious to be used alone and is generally softened by mixture with petrolatum.

In a search for new ointment bases, attention has recently been paid to emulsions of the cold cream type in which are incorporated compounds of a high degree of surface action which are good wetting agents and also good emulsifiers. Some of these newer bases have the valuable property of being readily removable by washing with water. However, the reports of their use have been much too meager to enable a comparison to be made between them and the older materials.

Plasters.—In U.S.P. XI adhesive plaster was defined as a mixture of rubber, resins, and waxes with one or more fillers of absorbent powder such

# Therapeutics

## CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the April 1 issue and will concern "Use and Abuse of Bed Rest."

## Basic Principles in the Use of Drugs for Local Treatment of Diseases of the Skin

Dr. McKeen Cattell: The title of the conference today is "Basic Principles in the Use of Drugs for the Local Treatment of Diseases of the Skin."

Rather than to attempt a review of the large number of formulas which the dermatologist employs, we have thought it worth while to emphasize the basic principles behind the use of some of these drugs. If we can be informed regarding the pharmacologic actions in relation to the diseases of the skin for which they are employed, then we will be in a better position to evaluate what to some of us is the somewhat mysterious composition of certain of the mixtures which are commonly employed.

Dr. Grace will open the discussion.

DR. ARTHUR W. GRACE: I wish to discuss with you the mode of action of the different types of materials employed in the treatment of diseases of the skin. Such materials are, in ascending order of cutaneous penetrability, powders, lotions, liniments, oils, pastes, ointments, and plasters.

Powders.—Powders are chiefly employed upon surfaces which are not oozing, as in contact with serum they will cake, damming up the fluid, which then becomes an excellent culture medium for the skin bacteria. They are largely used for their cooling action, in which each particle accepts heat from the inflamed skin and radiates it from many facets. The most useful powder for this purpose is talcum, a silicate of magnesium. Another valuable property of talcum is that of "slip," a term which connotes the silky feel of skin to which talcum has been applied. Talcum is chemically inert enough to be employed as a diluent for other materials employed in powder form for their special action upon the skin. Such chemicals include boric acid, sulfur, salicyclic acid, and sulfathiazole as antiseptics, alum and tannic acid as astringents, menthol and camphor as antiprurities, and ethyl aminobenzoate as an analgesic. The stearate powders, especially those of zinc and magnesium, have the useful

qualities of adhering to the skin and of repelling water, both of which are taken advantage of in preventing irritation of infants' skin by urine. Face powders owe their adhesiveness to their stearate content.

Lotions.—Lotions contain their active ingredients either in solution or suspended in water, to which may also be added, most commonly, alcohol or glycerine. In both types of lotion the same objective is sought; namely, the deposition of the therapeutic material in fine powder over and into the affected area. Alcohol is included both as a solvent and for the cooling effect produced by its ready evaporation. The higher boiling point of glycerine enables it to remain upon the skin longer than either alcohol or water and this property, coupled with its greater viscosity, helps to retain the active materials for a longer period upon the involved surface. The liquid base, by reason of its macerating effect upon the epithelium, is responsible for the superior penetrating action of the lotion, an effect which is enhanced to such a degree when the lotion is used hot that certain inflammatory dermatoses extending as deeply as the subcutaneous tissue yield to their use. Unheated lotions probably do not penetrate to a greater depth than the upper corium and so are of the greatest use in the treatment of the superficial dermatoses, which include most of the vesicular and pustular eruptions.

Lotions can be employed upon oozing as well as upon dry surfaces and are used for cooling, astringent, antipruritic, antiseptic, and analgesic purposes. Choice of the solid ingredients depends upon the nature of the condition to be treated. Generally speaking, a material that is used successfully as a powder can also be employed for the same purpose in a lotion. An exception is talcum, whose tendency to cake in the presence of water renders it inferior to zinc oxide for use in those lotions where the cooling effect of a powder is desired.

Liniments.-All lotions, when used for a

of Sarcoptes scabiei. Pediculi are killed by thick ointments of indifferent structure and their ova when attached to hairs are loosened when solvents such as xylene or benzene are applied locally.

It is important that good judgment be used not only in the kind of medicament but also in the vehicle. A sticky, ill-smelling grease is distasteful to use, particularly if the amount of skin to be treated is large. A more elegant preparation utilizing wetting agents like triethanolamine or aquaphor will be less likely left unused on the patient's shelf.

As a parting thought I should like to state my belief that most nondermatologists make the mistake of using remedies of too strong concentration. Good results in the treatment of impetigo are usually possible with the use of 2 to 4 per cent ammoniated mercury ointment. If higher concentrations are used, the affected skin may become irritated and inflamed and active treatment necessarily postponed for a period. Another common misuse of a good treatment is the application of Whitfield's ointment to an acute vesicular dermatosis. A cautious, conservative approach in prescribing for most dermatoses makes a good beginning and furthers a satisfactory outcome.

Dr. CATTELL: We will now go on to the informal part of the program. Dr. Sulzberger is here and I will ask him to open the discussion.

DR. MARION B. SULZBERGER: Dr. Grace and Dr. Lewis have so adequately covered their fields that I would like to take two slightly different approaches—and I ask premission first to be general in my remarks and after that to be more specific.

First and in general, the skin is a remarkable tissue, and one of its most remarkable features, from the point of view of our present discussion, is that it is so accessible to study—including studies in pharmacology, or the effects of drugs.

Despite the many thousands of investigations in this field, I venture to state that as yet the skin has been but inadequately utilized from the pharmacologic point of view. There are relatively few objective pharmacologic studies on cutaneous toxicity, on irritating properties, sensitizing properties, etc., or the effects on dermal nerves, blood vessels, or glands, which may be produced by many of the drugs listed in our Pharmacopeia.

In contrast to this, there are very many examples of experiments in which the skin has been used with the object of studying dermatologic reactions as indices of what has happened to the entire organism.

For example, Robert Koch's classic studies in tuberculosis would have been practically impossible without his first observations on tuber-

culous infection and reinfection of the skin, and his discovery of the specific alterations which take place in the skin's powers to react on reexposures to both tubercle bacilli and to the extracts of bacilli, i.e., Koch's tuberculin. The same is true of Schick's studies of diphtheria and of the Schick test: unless the skin had been utilized to demonstrate the acquired specific immunity to the toxin, surely Bela Schick's and von Pirquet's basic work would have been either impossible or greatly retarded.

The recent studies of Sir Thomas Lewis with histamine, and of Grant, Landis, and others of his school, really have their origin and impetus from observations on the action of histamine and trauma and cold on the skin and on the whealing of the skin; and eventually from the observation of the acquired refractoriness of the skin to whealing on repeated exposures to histamine.

In this connection I ask you also to recall that most of our understanding of the effects of physical agents was originally gained through the observation of the skin's reactions to these agents. For example most physicians still use the term "skin erythema dose" when speaking of a certain measure of x-rays: and the skin's reactions, incuding erythema, pigmentation, depilation, and atrophy, are still among the most practical biologic indices for the quantity and quality of the x-rays and beta and gamma rays delivered. And mutatis mutandis, the same remark is true of ultraviolet light rays.

These are but a few of the important fields of medicine in which the objective study of the reaction of the skin has been utilized to elucidate fundamental phenomena. But none of these examples is a true pharmacologic study upon the normal skin and upon the pathologic cutaneous processes; none is primarily a study of general therapeutic drugs by means of observations of their various cutaneous effects.

Here there is relatively little information; and relatively few drugs have been studied for their effects either upon normal skin or upon pathologically altered areas of skin. Both of these types of effects can, of course, be studied from both the objective and subjective viewpoint. We can see, feel, measure, photograph, analyze, culture, biopsy, microphotograph, spectograph, and in other ways examine the cutaneous changes we elicit with the drugs. And we can often ascertain from the human subject the subjective sensory changes drugs are producing—and all this can be done with ease and while the subject is still alive.

Our remedies used in dermatology are actually classified in these two ways; i.e., according to the subjective and according to the objective

as zinc oxide, orris root, or starch, mechanically mixed and spread evenly upon cotton cloth. The plaster mass contained about 30 per cent of rubber. In the current U.S.P. XII the ingredients of the mixture to be spread upon the fabric are not listed. Plasters form a cover much more impermeable than that obtained with pastes and ointments and so produce a greater degree of maceration of the underlying tissues than do those materials. Chemicals incorporated in the plaster mass consequently become more intimately mixed with the diseased tissue. The plaster most commonly employed in dermatology is one containing up to 40 per cent of salicylic acid and is very useful for the removal of corns and calluses.

DR. CATTELL: Dr. Lewis, will you continue? DR. Gnorge M. Lewis: In continuing the discussion, I should like to take up the reasons for employing certain types of prescriptions.

In common with other specialists, dermatologists today attempt to treat patients on an causative basis. This is not always possible; frequently we employ symptomatic and empiric treatments which from experience are known to be effective. Even when the cause of a dermatosis becomes known and is eliminated, the affected skin may require some local therapy before cure is obtained. Treatment of poison ivy requires more than removing the patient from possibility of contact with rhus toxicodendron.

Detergents are cleansing agents, of which water is the best for most skins. Other cleansing agents in common use include soap, oils, and greases. Being miscible with water, sulfonated oils are useful as cleansing substitutes when there is a soap idiosyncrasy or in instances when the irritating effect of soap is undesirable.

Applications to be used in the therapy of acute inflammations of the skin may be selected because of their antiphlogistic (soothing), cicatrizing (healing), or astringent (contacting) effects. The agents employed are usually applied in the following order, beginning with the more acute and proceeding to the others with improvement: first, wet compresses; second, lotions; third, oily suspensions; and fourth, greasy applications (pastes and ointments). For classification of topical agents see Abramowitz, E. W.: "Local Medication in Diseases of the Skin," Arch. Dermat. & Syph. 23: 644 (April) 1931.

With chronic disorders, keratolytic (desquamating, peeling), reducing (in which oxygen is removed from the tissues), and keratoplastic (stimulating) remedies are usually employed. Such a drug as chrysarobin may be used as a reducing agent but it is also stimulating and may, if used in certain concentrations, be desquamating. Other drugs used for a similar purpose,

such as mercury and sulfur, have actions on the skin comparable to the drug just mentioned. Such compounds should not be used in the presence of acute inflammation.

Antiprurities are important, since itching is the usual presenting symptom. Calamine lotion and boric acid wet compresses are soothing agents that are also frequently antipruritie in their pharmacologic action. Phenol is an example of an antipruritic whose effect is caused by a temporary anesthetizing action on the sensory nerve endings. Menthol, camphor, and alcohol are efficient antiprurities, their effect being in part at least due to their cooling action. With alcohol the cooling effect is obtained with evaporation; with the others the effect is apparent immediately upon application.

There are certain drugs which are quite useful as local antibacterial agents. The time-honored favorite employed by dermatologists is mercury. They use the drug in concentrations suitable to the skin, so that no unwanted inflammation is induced.

Mercury in the form of ammoniated mercury is a favored drug in the treatment of various streptococcic and staphylococcic infections of the skin. Various dyes and paints have also been found useful. The sulfonamides incorporated into ointments, creams, and films have come into popularity; they are of undoubted value, but apparently have a rather high index of sensitization and should not be used indiscriminately and without definite indications.

The antifungal agents employed today are for the most part unreliable and unsatisfactory. In the treatment of tinea capitis local therapy is successful when Microsporum lanosum is the causative agent. The effect of treatment is nonspecific and no particular drug is known to be lethal. Cure is obtained by mechanical epilation when ointments are rubbed in as well as by the stimulating effect on the skin, enhancing the inflammation already present with resultant defluvium. In the type of tinea capitis due to Microsporum audouini, local therapy is almost always fruitless, since the infected hairs are not loose and the application of medicaments will not produce the deep follicular inflammation required to assist in their depilation. Similarly, in fungous infections of the feet there is usually satisfactory response to the intelligent use of topical measures in the acute form of which Trichophyton gypseum is the causal agent, whereas the chronic infections due to Trichophyton purpureum are notoriously resistant and rebellious to any known therapeutic regime.

Treatment of most of the animal parasitic skin diseases is satisfactory. Sulfur, benzyl benzoate, or pyrethrum are specific in the killing did not itch, I think that dermatologic practices would suffer a sharp decline.

The practice of the dermatologist does not possess the dramatic appeal of that of many other specialists. It is not "white plague" he is combatting; it is not the eternal night of blindness; it is not the malignant horror of cancer; not the macabre, wit-destroying insanity; it is not the social scourge of syphilis; it is not the pitiful choking terror of diphtheria or the limb-twisting palsies of poliomyelitis; it is not any of these spotlighted melodramatic villains of medicine that the skin specialist is fighting. But he is nevertheless fighting a group of diseases which is probably one of the foremost causes of incapacity and inadequacy in otherwise healthy persons.

In military service in particular, one cannot fail to be impressed by the tremendous amount of disability which skin diseases produce. Over 10 per cent of all the man-days lost because of sickness in the armed forces were lost because of skin diseases. That is, out of every ten days lost (lost because of any medical or surgical disability, including losses due to venereal diseases, operations, infections, etc.) one day was lost because of skin diseases.

And these figures are based on a peacetime analysis. Under conditions of war, excluding actual battle casualties, it is probable that a still higher percentage of all disability will be due to skin disease. This is due mainly to the fact that the conditions of military life very often favor the production of the skin diseases due to crowding, moisture, sweat, friction, and other wartime exposures.

Now when we put these two facts together—first, the fact that topical treatment is still the most important part of dermatologic therapy; and second, the fact that skin diseases as a group are probably one of the most common causes of disability in human beings—they add up to the inevitable conclusion that the laws and rules and special knowledge and skills of external, topical therapy are exceedingly important for every physician.

In view of this it would, of course, be most desirable to simplify the indications, contraindications, and methods of external treatment to such a degree that they could be mastered rapidly by all physicians. Unfortunately, the attempt to do this is confronted with such difficulties that it approaches an impossibility.

Nevertheless, I said I was going to be more specific about local treatment, and I will attempt to do this in the three minutes left to me. In my opinion, the first thing to do when you see a patient with a skin disease is to consider the location of the disease in relation to the type of

topical treatment that you are going to prescribe To illustrate this dictum, I need only point out that no sane physician would think of prescribing calamine lotion to treat a disease of the hairy scalp in an ambulatory patient.

What vehicles can you use on the scalp? A question such as this surely belongs to the basic pharmacology of dermatology. The selection of the proper vehicle is part of the pharmacologic management of disease, just as much as the selection of the medicament itself or of the determination of the tolerated dose. You cannot give a woman an ointment of petrolatum-like consistency to put on the scalp liberally every day; and possibly not a man either, unless he is willing to spend a couple of hours each day trying to wash it out or is as bald as some of us. And certainly and quite comprehensibly, most women will be unable or unwilling to wash out the petrolatum or material of petrolatum-like consistency daily. Therefore, before you prescribe anything for local treatment, you must consider the location of the disease. For the scalp you choose a remedy such as a nonstaining, clear, nongreasy nondrying lotion which can be rubbed into the scalp: or, in women, a water-miscible, disappearing cream which can be rubbed in without destroying the contour and beauty and esthetic value of the coiffure. Another consideration to be borne in mind is that, whenever possible, you must not choose a medicament which will stain or discolor or which is too smelly. You have to find out what the patient and his or her environment will tolerate in the way of odors. That too is pharmacology. It is just as much pharmacology to say you cannot use medicaments which are too unpleasant to the olfactory sense as to say you cannot use a medicament which is too irritating to the gastrointestinal tract. In both instances the irritation produced will preclude the patient's further employment of the remedy.

And in speaking of tolerance and irritation. here again the location of the disease must be considered in selecting medicaments and their vehicles and concentrations. The same medicament which is well tolerated in a paste will often irritate when used in the same concentration in an ointment; or one which is tolerated in a certain concentration by the scalp will not be tolerated by the eyelids and often not by the rest of the skin. For example, 10-20 per cent ammoniated mercury in an ointment is usually not too strong for the scalp; but the neck or the face or particularly the eyelids of the same patient will often be irritated by concentrations of over 2-5 per cent. In other words, in order to prescribe topical remedies you must know their relative activity in different vehicles and bases, and also the usual relative degrees of tolerance

changes they produce. For example, in the chart which Dr. Lewis showed, you saw a heading entitled "Antiprurities." That is an entirely subjective basis for classification. It is based on how the patient's itching feels after the application of the remedy. Then on the other hand you saw on the chart such headings as "Keratolytics." That is a more or less objective criterion for classification, based on how much peeling and desquamation can be observed after application of a drug.

I do not want to tire you with further examples of how our knowledge of the effects of drugs might easily and rapidly be expanded by studies on the pharmacologic action of medicaments on the skin—but I hope that what I have outlined will suggest to you the many problems which are more accessible by this approach than by any other.

I think there is a big field beginning to open in this direction. One of the recent examples of objective, controlled, dermatopharmacologic studies were those carried out by Milberg, who I believe is here today, together with Dr. De Palma in the department of Dr. Arthur Grace at the Long Island College of Medicine. report in J. Investigative Dermat., December, 1942.) A simple technic was used to produce erythema, by measured pressure to a given skin area. Then when the norms for appearance and duration of erythema and for disappearance of erythema were established in an individual, different medicaments were applied to the skin and subsequently the erythema again produced, and the change in the time factors noted. Some very simple topical applications were found to markedly affect the times required for the development and regression of erythema. For example, it was found that simple starch poultices exerted a really tremendous "speed-up" effect upon the capacity of the blood vessels of the skin to react.

Studies of this type can be expanded and varied almost infinitely; and in this way we can soon get much accurate information regarding the effects of different local therapeutic agents upon this form of vascular cutaneous response.

Just now the pharmacology of topical therapy of the skin is really on about the same level as the pragmatic pharmacologic methods that were employed about a generation ago in general medicine. This backwardness is more the pity because the skin is so accessible to accurate pharmacologic studies.

That is not a criticism of the pharmacologist and is not a criticism of the dermatologist. It is just an unfortunate circumstance. I think that only a few people have properly approached these pharmacodermatologic problems and fewer still have received the funds, facilities, and cooperation which are necessary in order to carry out exact pharmacologic studies.

Despite this general dearth of fundamenta experimentation with the external application of remedies, the criticism is absolutely unjus that treatment of skin diseases consists of merely slapping on Lassar's paste or calamine lotion and letting it go at that. The local topica treatment of skin disease is still, I think, both a great art and a fairly accurate science, as well as the most fruitful approach to therapy in the majority of cases of skin diseases. It is through the skillful selection and application of external remedies directly to the pathologic process that the expert dermatologist grasps the unique opportunity afforded by the accessibility of the organ he is treating.

Let us take one dermatologist and have him open his practice on one side of the street, and take another dermatologist of equal training, experience, standing, personality, etc., and place his office on the other side of the street, and tell the first man, "You can treat all your skin diseases from the outside only," and the other man, "You can treat all your skin diseases from the inside only." Provided both orders were followed, the "outsider," if I may call him such, would, I am certain, soon have the inside track and soon have almost all the patients. And I say this in spite of a full realization of the advances which have been made and which are continuing to be made in the internal management of skin diseases, and in spite of the full recognition of the importance of general systemic changes and their influence upon skin diseases (and vice versa).

I am sure that most experienced dermatologists will agree with the above, and will confirm my statement that, as of today, external treatment, including radiation therapy, is still the most important part of dermatologic therapy.

But it is by no means an easy or a simple matter to carry out external treatment properly; and I think that is why most general men. and men in other fields, shy away from this problem. They don't want to have to think about it; the specialized form of prescription writing and the selection and application of external medicaments is too complex, too difficult, has too many of its own laws, is too much of a specialty in itself, for a busy general physician to become involved in these problems, particularly when there is nothing very melodramatic about most diseases of the skin and their cure.

For in dermatology most of our patients come to us because of disfigurement or because of itching. If skin diseases did not "look bad," were not disfiguring and unsightly, and if many skin if placed in lanolin with a small amount of mineral oil, than if suspended in petrolatum.

DR. WHEELER: It seems to me there are a great many beliefs of that sort which are accepted by the dermatologists as well as by other medical groups, yet when you get down to it it is very difficult to get evidence in their support.

Dr. Harry Gold: There is, of course, the fact that different types of vehicles will effect the penetration of certain agents through the skin. For example, the penetration of methyl salicylate through the skin has been studied in a variety of media: 50 per cent alcohol, oil, undiluted methyl salicylate, and then the amount of salicylate in the urine determined. The results show that the characteristics of the media greatly influence the amount absorbed.

Dr. Wheeler: But do we know, for example, that ointment would be any better than water, or as good as alcohol?

Dr. Gold: What you said about the lack of information concerning the absorption of various drugs holds, but the general fact that different media do alter the absorption of compounds through the skin is well established.

DR. WHEELER: The same thing holds when the dermatologists talk about stimulating applications. Yet we see them applying them for months to the skins of people with chronic eczema and it seems to me that usually we don't see any evidence of stimulation.

Dr. Lewis: There are two studies which have been made regarding the question of drug penetration in which serial sections have been made following the application of various medicaments in different media and it has been proved that certain types of greases carry the drug down further. I think that has been well established.

Dr. Sulzberger: Oh, yes, there is a tremendous quantity of both old and modern literature on the subject of transcutaneous penetration, with hundreds of reports and experiments, particularly during the last sixty or seventy years. Many of the modern dermatologic studies on penetration through the skin began with the study of the effects of mercurial inunctions in connection with the problems of the transcutaneous treatment of syphilis. great deal of study was given to the problems of mercurial inunction, including the questions of the best mercurial to use, the best manner and method of rubbing, and the best vehicles to use to obtain maximum penetration. Experiments of this type have always been difficult, especially when dealing with volatile substances like methyl salicylate, other essential oils, and with mercurials. The experiments must always be carefully planned and executed to rule out the absorption of the volatile material via the

respiratory tract or the swallowing of materials by the experimental animal or even by the human subject. There are many ways of measuring percutaneous absorption. One way of trying to avoid the usual difficulties is by doing biopsies of the skin after the external application, and then ascertaining, by specific staining methods and microscopic examination, the route and rate of penetration of the material applied. But there are very many technical difficulties in these experiments also. For example, one must rule out the spreading of the material by the microtome knife while cutting sections; or of spreading the material while fixing, preparing, and staining and when placing the tissues or the sections in different solutions. Despite these great difficulties, the many modern studies can be accepted as indicating that watery solutions of certain medicaments when placed on intact skin produce much less percutaneous penetration than putting on the same agents in some forms of greasy vehicles. Moreover, one can demonstrate that certain adjuvants, e.g., methyl saliculate, ethereal oils, certain wetting agentsand particularly certain newer vehicles consisting of combinations of wetting agents and solvents-all can very materially increase penetration of the embodied substances into or through the intact skin.\*

#### Summary

Dr. Solzberger: There is usually little or no dramatic appeal connected with the prevention and treatment of diseases of the skin. as a group these diseases probably account for more discomfort, more lowering of morale, and more actual illness and disability than do diseases of any other organ. Because of this fact. and also because the skin presents the most highly differentiated and most accessible tissue for direct study, the pharmacology of the skin would appear to merit more intensive—and above all more carefully integrated-study and teaching than this subject has heretofore received. The usefulness of the cutaneous tissues for study and teaching may be divided roughly into three categories:

1. The use of the skin as an indicator of the state of the individual (skin tests in diphtheria, tuberculosis, lymphogranuloma venereum, hay fever, contact dermatitis, etc.; the wheal resorption time in pre-edema; capillary microscopy; measurements of skin temperature, color, turgescence, elasticity, etc.).

2. The use of the skin for studying the biologic

Idem: Lab. & Clin Med. 28: 1305 (August, 1943); and F Herrmann, et. al.: Science 96: 451-2 (1942)

<sup>\*</sup>See Rothman, Stephen: Handbuch der normale und pathologischen Physiologie 4: 107 (1929); and Supplements, 18: S5 (1932).

of various skin areas. These are but a few examples of how location influences our prescription of both vehicle and concentration.

After due regard to location, we must consider the state of the eruption in selecting local treatment. As Dr. Lewis and Dr. Grace have pointed out, the vehicle is very important in relation to the state of the eruption to be treated. If you are treating an acutely inflamed area it is a good rule not to use an occlusive vehicle. You use wet dressings, cooling, evaporating, absorbent, and porous applications of various kinds.

According to the state, or according to the facilities for executing treatment, you prescribe compresses, baths, lotions, powders, etc. Then again, you cannot have a patient rub greases into hairy areas, or on areas subject to sweating and friction, without the danger of producing folliculitis; in many persons greases will block up the follicles and eventually produce acneform and furunculoid lesions. All of these examples are merely random selections from the literally hundreds of basic and highly specialized principles of pharmacology which must be borne in mind in applying local treatment to skin diseases.

It is only after such basic general principles have been weighed that the physician can consider the problems of the specific diagnosis of the eruption and the specific agents to be employed. And as a rule in selecting the agent to be applied, the two considerations which I have just mentioned, that is, (1) the site of the eruption, and (2) its state, are considerations much more important than the specific diagnosis.

I repeat: whether the skin lesions are torpid, whether they are highly inflamed, whether the skin is swollen, whether it is oozing, whether it is primarily or secondarily infected—these considerations of stage and state, plus the consideration of the site affected, these two determinants are usually of greater weight in selecting vehicles, active ingredients, and concentrations, than are all other considerations combined.

After the physician has applied this much logic and knowledge of the laws of external treatment, his selection of remedies becomes much like the pharmacotherapy of internal medicine; i.e., an almost purely empiric procedure based on the past experience with certain remedies in certain diseases. This leads to the classification of external remedies in the various categories which Dr. Lewis showed in his table. For example, the antibacterial substances such as mercury, dyes, sulfonamides, etc., the fungicides such as iodine, antiscabetics such as sulfur or benzoyl benzoate, these are all selected on the basis of experience, and without much knowledge

of the theories and actual mechanisms of their effects. In other words, here dermatology is just like the rest of medicine, choosing its remedies by the same methods by which quinine is chosen for treating malaria, or arsenicals for destroying trypanosomes. Nevertheless, even here the dermatologist is faced with special problems and unusual difficulties. For example, a medicament which works well in one type of vehicle will work very poorly in another. Substances which work well alone will often work better or not as well when combined with other agents; or substances ineffective or weakly effective alone or in certain combinations will prove more effective when used in conjunction with other combinations of remedies. And all of these differences in effects are often seen quite clearly and rapidly in treating that most accessible organ, the skin, and are clearly apparent to both physician and patients. This last is a happy (or respectively unhappy) circumstance which is not so generally or obviously present in treating internal organs.

And so, based on considerations and experiences such as those I have sketched, the pharmacology of external treatment takes form. And the experienced dermatologist builds up his, at first glance, seemingly unnecessarily complicated prescriptions and formulas, weighing carefully all these considerations of site and stage of the lesion, of the age and sex and other circumstances of the patient, of the physical properties of the vehicles, of compatibilities or incompatibilities, of synergistic and additive action between different agents and vehicles, and he finally selects the best combinations to produce the multivalent effects that he is trying to achieve.

DR. CATTELL: We still have time for one or two questions.

DR. C. H. WHEELER: Is there any scientific evidence that grease makes substances actually penetrate the skin more deeply than they would if an equal amount of friction were applied in watery solution or in suspension? For example, if a mercurial is rubbed on the skin with water, is there any evidence that the penetration would be less than if rubbed in with lanolin?

DR. GRACE: I do not know of any scientific evidence to support what Dr. Wheeler has said. It is well known, however, that medicaments can be made to enter the skin when they are suspended in greasy vehicles.

To cite one instance: recently experiments were performed to see how much vitamin A could be introduced through the skin in vehicles and it was found that more vitamin A, as measured by the improvement in the condition of depleted rats, could be introduced through the

# History of Medicine

#### EPONYMS IN THE HISTORY OF CANCER

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A LTHOUGH the history of facts and theories regarding cancer is long and complicated, it is only since 1800, and mainly after 1850, that proper names have been applied to certain tu-

It is an axiom in the newspaper business that names make news. In medicine, also, the addition of biographical data to the description of a postulate, syndrome, or disease entity, rather than the assignment of a long and complicated technical phrase, adds historic interest.

My purpose here is to list in approximate chronologic order those authors whose names are attached to classic or epoch-making descriptions in the long history of cancer literature. In three instances the names of early anatomists and histologists are included, although they did not study cancer of the particular tissues they so well described.

One of the durable satisfactions of a physician's life might safely be said to be the designation of a disease after himself. It is something which he cannot do for himself, but his peers may confer the honor. It is a gift that cannot be politically maneuvered, and it consequently has the essentials of a spontaneous recognition of merit. It carves a deep, quickly recognized meaning in a language where science is respected, and often it is as distinctive as Latin or Greek terminology. The designation of eponymic terms is medicine's method of canonizing the author for all times in its literature. In a recent volume of quotations, Henry L. Mencken lists an unidentified author as saying that "the final test of fame is to have a crazy person imagine he is you." To my knowledge no physician has risen to such lofty heights with or without an attached eponym.

Emerson C. Kelly, of Albany, who has studied the complete literature of eponymic terms for several years, has considered the search for the first description of a disease entity to be futile. The following discussion will show how well-described case studies of unusual tumors were occasionally reported years before the eponymic terms were generally applied-e.g., the Krukenberg tumor of the ovary and the Meig's syndrome.

It is quite impossible to determine a reader's preferences regarding the use of eponyms. As long as some are used it saves time in selecting the literature of a given subject to have some gen-

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eral knowledge of this form of terminology. A translation of the title of a recent foreign article as "Brown-Séquard's symptom complex, complicated by Klumpke's paralysis" well illustrates the necessity of some knowledge of eponymic names. Bain has said that: "Honour belongs to the first suggestion of a discovery, if that suggestion was the means of setting someone to work to verify it; but the world must ever look upon this last operation as the crowning exploit."

Most lovers of medical lore find it pleasant to have the history of their favorite science recalled to mind by terms that embody the names of the masters of medicine. Many eponyms cannot be improved upon by the substitution of any arbitrary combination of Greek or Latin derivatives in place of the name of the discoverer.

German medical students and hospital assistants have been apt to coin eponymic terms in honor of the Geheimrat professor-either as a subtle form of flattery or in recognition of a solid achievement. French literature presents some examples of this same tendency.

A report from the London Lancet of July 29, 1837, discourses as follows on: "Priority! What a magic word!-as dear to the soi-disant discoverer, as is honour to the maiden, glory to the soldier, or freedom to the patriot's heart. A celebrated historian has remarked, that of all civil commotions, the most sanguinary and inveterate are those which arise in consequence of religious dissentions. Even thus is it with the feuds of 'discoverers.' Priority is a hidden treasure, suddenly brought to light, upon which every adventurer falls, each determined to carry off, at least a portion of, the booty, if he fails to appropriate the whole. Hence, the moment that a new fact is announced,-a fresh discovery in medical science is proclaimed, and a troop of foragers are on the qui vive, like passengers in a street, when a cry of 'Pickpocket! Stop, thief!' is raised. The more prudent consult their memories, or their notebooks, and there find record, at all events of 'the germ' of the alleged discovery. while some literary jackall discharges from the venthole of his empty noodle the only idea that was ever contained in that cavity, and, with a pertinacity which is peculiar to his class, insists on its identity with the fact announced, declaring that it was familiar to him from his childhood. or handed down to him, perhaps, from a long line of illustrious ancestors. The quarrel once serieffects and the effector mechanisms and effector organs in relationship to chemical and physical agents (histamine, choline, adrenalin, pilocarpine, cold, heat, stroking, pressure, tension, etc., in relation to axon reflexes, vascular, sudomotor and pilomotor responses; x-rays, radium, and light in relation to erythema, vesication, pigmentation, depilation, and carcinogenesis; the effects of vesicants, allergens, carcinogenic substances, of micro-organisms, of hormones, of vitamins, and so forth).

3. The use of the reactions of both normal and and pathologic skin for the study and evaluation of agents to be used in treating skin diseases.

The last category is still largely on an empiric basis and the local therapy of skin diseases is therefore still based upon a combination of the experiences of others plus an elaboration of personal judgment and observations rather than on laboratory and experimental data.

Nevertheless, local and external treatment is at present by far the most effective form of management of cutaneous disorders. Moreover, if physicians could treat ulcers or tumors of the gastrointestinal tract, or certain lesions of the brain, lungs, kidneys, heart, or other viscus as early and as directly as they are able to treat cutaneous lesions, they would undoubtedly be able to scotch incipient disorders in the viscera as regularly as they do those of the skin.

In selecting dermatologic remedies for external application, the practical considerations of age, sex, occupation, duties, and economic and social status of the patient must often be paramount.

The exact site of the lesions is another prime consideration influencing the selection of remedies (hairy or nonhairy, covered or exposed, subject to friction or maceration or not, etc.).

A third and most weighty consideration is the state and stage of the skin disease (acutely inflamed, swollen, oozing, or chronic, dry, scaly, thickened, etc.).

The choice of vehicle is often more important than the choice of so-called "active" ingredi-

ents.

And above all the physician must have perfect knowledge of the properties of each medicament he prescribes: its color, consistency, odor, and packaging; how it is to be put on, how it will stay on, how it is to be removed; its expected effects and possible by-effects, including any staining, unsightliness, discomfort, and allergic reactions it may occasion. Prescriptions given without explicit directions and warnings to the patient will either be used incorrectly or will soon be relegated to the sink, trash basket, or bathroom shelf.

As experimental studies and the teaching of pharmacology of the skin gain their proper status and as our knowledge of this subject increases. dermatologic therapy will undoubtedly increase in effectiveness. But even today the science (and art) of local treatment is, to say the least, as fully developed as are other branches of therapeutics.

Dermatology has its own well-established rules, based on a great wealth of careful clinical observations. The physician who knows these rules and who lege artis and skillfully selects and applies the various available bandages, compresses, lotions, tinctures, pastes, ointments, plasters, baths, splints, zinc gelatin dressings, as well as physical measures such as cold, heat, electrolysis, x-ray, radium, and ultraviolet rays, each in its proper place and in correct combination or sequence, will bring relief in most cases of skin diseases.

#### HEALTH ASSOCIATION RE-ELECTS AMBERSON

Dr. J. Burns Amberson was re-elected president of the New York Tuberculo-is and Health Association at the annual meeting of its Board of Directors held on January 25.

Re-elected also to office for the year were Bailey B. Burritt, first vice-president; Dr. Edwin P. Maynard, Jr., second vice-president; Daniel Paul Higgins, secretary, and Raymond Atkin, treasurer. Those elected to the Executive Committee of the Association include Mr. Atkin, Mr. Burritt, Dr. E. H. L. Corwin, Dr. Kendall Emerson, Dr. Oswald R. Jones, Dr. Maynard, Dr. James Alexander Miller, Mrs. Ruth Logan Roberts, Dr. I. Ogden Woodruff, and Dr. Amberson, ex officio.

Woodruff, and Dr. Amberson, ex officio.
Alfred C. Howell, Dr. H. McLeod Riggins, and
Winthrop A. Wood were elected to serve as representatives of the Association on the Council of

the Tuberculosis and Health Association of Greater New York, which includes the Brooklyn and Queensboro Tuberculosis and Health Associations Dr. Amberson and Frank Kiernan, Executive Director, will serve as ex officio representatives to the Council.

Dr. C. C. Pierce, chairman of the Social Hygiene Committee of the Association, was elected a member of the Board of Directors to serve until 1947. Those whose terms expired this year and who were re-elected to serve also until 1947 include: Dr. Amberson, Mr. Burritt, Dr. Emerson, Dr. Miller, Dr. B. S. Oppenheimer, Dr. Edward C. Podvin, Dr. Riggins, D. Kenneth Rose, Mrs. Alfred Shriver, Dr. Wilson G. Smillie, Dr. Ernest L. Stebhins, Benjamin Strong, Dr. Grant Thorburn, Mr. Wood, and Dr. Woodruff.

written before cells were even known, before cellular pathology was established and blood examinations were made. Personally, Hodgkin was an eccentric and unhappy Quaker. His total writings numbered only 49, fewer by many than those of the great Paget, who was more a man of affairs and in every way more successful.

In the first series of the Index Catalogue up to the year 1887 there were 58 references to the eponym Hodgkin's disease under the general heading lymphadenoma. The first use of the proper name of Hodgkin was made by Samuel Wilks in the Guy's Hospital Report of 1865. In 1856 Wilks had preceded Hodgkin with a paper on "Cases of Lardaceous Disease and Some Allied Affections." These cases were described without knowledge of Hodgkin's previous report, and he lamented the fact that Hodgkin "did not affix a distinctive name to the disease." This defect he himself remedied by applying the eponym of Hodgkin's disease, perhaps for chauvanistic reasons, and in honor of Guy's Hospital. Hodgkin was curator of the Pathological Museum at Guy's Hospital when he collected his material, and Wilks followed a rather distinctive English custom of compiling and correlating interesting cases, which has survived to the present time. While the more recent collections of this sort have not all been of such great importance, still they are of considerable value, as patiently collected and described series of unusual pathologic conditions.

The first American reference was by T. J. Black in the American Journal of the Medical Sciences of 1868, a journal at that time already in its fifty-fifth volume. The first thesis to bear this eponym in the title was written by F. Menne in a doctor's dissertation at Wuerzburg in 1878, while G. A. Wunderlich used it in a German magazine article in 1866. In France the eponym was first used in a paper by Severt in 1872; while in Italy, E. de Renzi and P. Penta used it in articles published at Naples in 1884.

Emile Adolphe Bonfils in 1857 also wrote a 25-page study on this subject, and the French have honored him by identifying this disease with his name. The great French clinician Armand Trousseau (1801–1867) is also eponymically cited in "Trousseau's Adenitis in Pseudoleukemia."

P. K. Pel and W. Ebstein in 1887, in the Berliner Klinische Wochenschrift, described 3 and 10 cases, respectively, of phases of this disease characterized by an irregular febrile course. This peculiarity has since been identified by the combined eponym of the Pel-Ebstein syndrome.

A most modern account of the cellular structure of this disease was given by A. Dietrich in 1896 Because of the serious omission of descriptive plates this worth-while contribution never received its due award.

Histologic advances in the study of Hodgkin's disease were made by Carl Sternberg (1889) in the presentation of 15 cases under the title "A Particular Form of Widely Scattered Tuberculosis of the Lymphatic Apparatus Presenting the Picture of Pseudoleukemia." Four years later Dorothy M. Reed (1902), an investigator at Johns Hopkins, made an exhaustive study of 8 cases in a 64-page paper. In 1940 George W. Jones, in a finely critical survey of the question of histology, concludes that Dorothy Reed is the one most worthy of eponymic commemoration wherever the "characteristic cells" are found in the lymphoid tissues of Hodgkin's disease.

Nathan E. Brill and coworkers in 1925 described an unusual form of abdominal Hodgkin's disease. Two years later Douglas Symmers of Bellevue Hospital described the pathologic findings on the basis of 3 cases.

M. H. Gordon, in 1932, described an animal test in which an emulsion of a suspected gland is injected intracranially into a rabbit. After two to six days' incubation, microscopic examination is said to give a characteristic appearance. This test has been checked and criticized by others, but apparently it has some merit in differential diagnosis, for it was eponymized by C. E. van Rooyen in 1933.

In discussing the lymphomatous diseases (or the so-called lymphoblastomas) Edward B. Krumbhaar (1936) has given his preference to certain eponymic names that are noncommittal as to causation—at least until a cause for the disease based on adequate evidence is forthcoming. He states correctly that the great difficulty is that any designation that approaches accuracy becomes an unwieldly description, not a term.

#### Mammary Gland

At the advanced age of 60, Sir James Paget (1814–1899), the great English pathologist and surgeon, first described "the diseases of the mammary areola preceding cancer of the mammary gland." This paper was his one hundred and eleventh medical publication, his grand total on many diverse subjects being 175. He is also known eponymically for four other disease entities and one drug mixture. His paper on breast cancer was based on a study of 15 cases, which were not separately described, but were rather presented as a masterly, concise summary in only three short pages.

Following the original description of Paget's disease of the breast in 1874, the *Index Catalogue* of 1888 collected nineteen references, twelve of them using Paget's name in the title. The first to give it an eponymic character was T. McAnder-

ously aroused, the partizans of each claimant forthwith rally round their principal, and the battle becomes general. Hard words are interchanged, and men who have hitherto been as 'honourable' as Brutus, suddenly find themselves arraigned as thieves. The learned are convinced of profound ignorance; men of veracity are shewn to be false witnesses; social order is sacrificed to personal vanity; and friendship changes into hatred, and esteem into contempt." This original of 1837 contains some broad Rabelaisian satire, which would hardly bear complete reprinting in the Lancet of today.

In 1877, the immortal Hermann von Helmholtz delivered his famous address on "Thought and Medicine," at which time he commented that it was thirty-five years (1842) since he had read a paper before a similar audience on the "Operation of Venal Tumours." Apparently this was an inaugural dissertation, and he admitted that at the time of delivery he had never seen a tumor cut, and the subject matter of his lecture was merely compiled from books. In this interesting lecture of 1877 he comments entertainingly on the question of priority: "To find superficial resemblances is easy; it is amusing in society, and witty thoughts soon procure for their author the name of a clever man. Among the great number of such ideas, there must be some which are ultimately found to be partially or wholly correct; it would be a stroke of skill always to guess falsely. In such a happy chance a man can loudly claim his priority for the discovery; if otherwise, a lucky oblivion conceals the false conclusions. The adherents of such a process are glad to certify the value of a first thought. Conscientious workers who are shy at bringing their thoughts before the public before they have tested them in all directions, solved all doubts, and have firmly established the proof, these are at a decided disadvantage. To settle the present kind of questions of priority, only by the date of their first publication, and without considering the ripeness of the research, has seriously favored this mischief.

"In the hundreds of books and pamphlets which are every year published about...carcinoma, all the most refined shades of possible hypotheses are exhausted, and among these there must necessarily be many fragments of the correct theory. But who knows how to find them?"

#### Nobel Prize Winners

There have been a total of thirty-four Nobel Prize winners in medicine between the time of Emil von Behring (1901) and the last prize to Gerhard Domagk in 1939. It is rather surprising that only two of these medical Nobel Prize winners have been honored for work on cancer.

Johannes Fibiger (1867-1928), professor of pathology at Copenhagen, was so honored in 1926, thirteen years after publication of his paper concerning the relation of a Nematode worm to cancer of the rat's stomach. After five years of laborious work he succeeded in proving that this worm, during its evolution, used a particular type of cockroach as an intermediate host. He was able to produce gastric papillomata, and in some instances true cancer, by feeding rats these specific cockroaches. It is of casual interest that he published this observation in three different journals within a year of 1913. It is also noteworthy that he died of intestinal cancer on January 30, 1928, two years after being awarded his delayed Nobel Prize.

Otto Heinrich Warburg (1883—) was also honored by a Nobel Prize in 1931 for the discovery of the function of the reproduction ferment of cancer cells. His first paper in a medical journal was published in 1925 and was followed by a monograph a year later.

#### Special Tests

The Fourth Series of the Surgeon General's Index Catalogue has indexed special cancer tests in groups and under eponymic names. For example, cytolytic tests are listed by three workers; endocrine tests once; flocculation tests seven times and hemoclastic tests (alimentary leukopenia) are listed four times. Many of these have arrived at eponymic proportions in a span of only a few years. Their importance has been recognized by the editors in a special listing under the respective authors' names. As this list is long, and since none have been completely accepted, further details are omitted here.

The two most readily recalled eponymic terms are probably Hodgkin's disease and Paget's disease, the latter referring to breast cancer and not to his second eponym on osteitis deformans. Because of their popularity they will be discussed in greater detail.

#### Lymphomatous Diseases

In the early part of the nineteenth century Thomas Hodgkin, a scholarly English physician (1798–1866), at the early age of 34, published the description of 7 personal cases, together with 7 collected from his friends, describing "Morbid Appearances of the Absorbent Glands and Spleen" in 1832. This description of a new disease was his ninth medical publication. The original paper was printed without illustration and is reproduced in its entirety in the Medical Classics edited by E. C. Kelly, who said in effect that we must not wonder that Hodgkin knew so little, but marvel that he knew so much when we realize that the original description was

of the Royal College of Surgeons of England, Vol. 1, 1846. The autopsy of a 49-year-old woman revealed scirrhus cancer of the stomach with bilateral involvement of the ovaries, which formed rounded oval masses about two inches in diameter. This is undoubtedly one of the earliest reports of this unusual metastatic tumor.

Under the directorship of Eugen Albrecht at Frankfurt a. M., Fritz Brenner wrote his doctor's thesis in 1907, at the age of 30, describing 3 cases under the title of "oophoroma folliculare." This thesis was promptly republished in the Frankfurt Zeitschrift für Pathologie. The tumor has a distinct histologic appearance, yet strangely enough the thesis contains no plates. J. Varangot, of France, in 1938 called attention to the nature and significance of the grooved nuclei of Brenner tumors, which R. Meyer had seen, but not emphasized, as early as 1932. Here again, as in the Krukenberg tumors with signet ring cells, the microscopic appearance is distinctive. Recent contributors on this subject give Varangot credit for proper emphasis on this point.

In 1937 Joe Vincent Meigs and J. W. Cass reported 7 cases of a syndrome characterized by a fibroma of the ovary with ascites and hydrothorax in a 37-page paper. The difficulty of explaining how fluid extends from the abdomen to the chest is a most important and intriguing question. It is of historic interest that C. J. Cullingworth described in the London Obstetrical Transactions of 1879 fibromata of both ovaries found at autopsy, which undoubtedly was one of the first descriptions of this complex disease entity.

Cervix.—Cancer of the uterine cervix has been one of the greatest fields of discussion in gynecology for many years. The cervix is an organ where direct visual examination can be made, yet early diagnosis often fails to approach the attainable maximum of accuracy. In 1872 Otto Spiegelberg (1830-1891) is said to have described a sign of cancer consisting of the recognition of a feeling of friction conveyed to the finger in digital examination of the uterine cervix. It seems a time quite remote when such a sign could be of much importance, and yet it has attained eponymic mention. Walter Schiller in 1928 first described a simple visual test using Gram's iodine solution to delineate suspected cancer tissue. This is followed by a scraping biopsy and regular histologic study.

Skin.—Arthur Jacob, in a small Irish publication in 1827, described an unusual ulcer of the eyelids, which was promptly recognized as a form of cancer, the rodent ulcer. This journal is elusive and has not been seen in the original, but subsequent authors used the term Jacob's ulcer after his publication. In 1872, at the age of 53, Moritz Kaposi described a rare and highly malignant

disease known as idiopathic multiple pigment sarcoma of the skin.

Henry A. G. Brooke, an Englishman, in 1892 discussed 4 cases of characteristic tumors of the skin, now known as adenoid cystic epithelioma. The original was extensively illustrated and included a fine color plate. Basal cell cancer of the skin was discussed exhaustively in a monograph in 1903 by Edmund Krompecher, about seventy-five years after Jacob's report.

John Templeton Bowen (1857— ), an American dermatologist, in 1912 described 2 cases of precancerous dermatoses demonstrated in chronic atypical proliferations, and in 1924 Paul Masson very clearly described 2 cases of neuromyomatous glomus tumors, illustrated by eight plates, one in trichrome stain. Since then many authors have referred to similar tumors as Masson's glomus tumor.

Other tumors of the skin associated with eponyms were described by Brown-Pearce, Malherbe, and Spiegler.

Lung.—Henry K. Pancoast, a distinguished radiologist of Philadelphia, emphasized in 1924 the importance of careful roentgenologic investigation of apical chest tumors and discussed 5 cases. An associate reviewed the earlier related literature since 1869, but the description of Pancoast is so clear-cut that this eponym is justly deserved and much used today in all discussion of pulmonary neoplasms.

Nasopharynx.—Alexander Schmincke in 1921 described 5 cases of lympho-epithelioma of Waldeyer's ring of lymphatic tissue of the nasopharynx in a paper of 10 pages. This tumor tends to metastasize widely and is fairly sensitive to irradiation therapy in its early stages. In 1832, Sir Felix Semon (1849–1921), a German laryngologist in England, described a sign of malignant disease of the larynx that causes impairment of the mobility or fixation of the vocal cords.

In the seventeenth century a German physician, Conrad Viktor Schneider (1610-1680), described the membrane which lines the nasal cavities and paranasal sinuses. Tumors arising from these structures are apt to be characteristic histologically and are generally radiosensitive.

Thyroid.—Karl Hürthle (1860— ), a German biologist and surgeon, in 1894 described characteristic cells of the thyroid gland which reproduce the unusual tissue when the thyroid is involved by neoplasm.

Bone-Multiple Myeloma.—The findings of a new substance occurring in the urine of a patient with mollities ossium were presented by Henry Bence-Jones (1813-1873) before the Royal Society of London on April 22, 1847. The article appeared one year later in the Society's

son in 1882, who reported in the Glasgow Medical The first German thesis was by A. Journal. Hanser, and was given at Heidelberg in 1886. Ten years after its introduction, George E. De Schweinitz reported the first American case in the Philadelphia Medical News of 1884. Apparently the first French thesis was by P. Fisse of Toulouse in 1897. In the meantime, a report by Chalot in 1882-1883 was the first in the French magazine literature. By 1906 the Second Series of the Index Catalogue listed seventy-seven papers under the heading "Nipples (Eczema of)-Paget's Disease," including two French theses. In about thirty years approximately one hundred papers had appeared which followed up the original observation of Paget and used his name in the title of the papers.

#### Cancer of the Genitourinary System

Kidney.—The early history of kidney cancer dates back to the time of Pierre François Olive Rayer (1793-1867), whose three-volume work in 1839-1841 was the first comprehensive study in any language, and the accompanying atlas illustrated renal cancer in all its various gross appearances. In 1885 Robin's careful histologic studies traced the origin of cancer of the kidney from the epithelium to the urinary tubules. Unfortunately this paper included no illustrations and therefore failed to be as important to the author's contemporaries as it appears to us in retrospect. Paul Grawitz, in 1883, described a tumor of the kidney which appears to arise from adrenal rests and promptly started a vast conflicting literature on this subject, which is not settled even today. Although K. J. Eberth recognized the unique character of a mixed tumor in a child, the eponymic honor goes to Max Wilms, who in 1899 so clearly described the entire group of mixed tumors that he is generally given the credit. monograph, however, contains only three reports of tumors in children, and one of these is merely the description of a specimen.

Adrenal Gland.—Malignant tumors of the adrenal gland have been described by William Pepper, an American, in 1901, and Robert Hutchison, an Englishman, in 1907. Both of these syndromes are distinctly characteristic and are readily recognized by the author's names in the literature throughout the world. These papers were short, both referred to the literature, which they carefully compiled to prove their theses, and were illustrated. At the time of publication, both authors were young, Pepper only 27 and Hutchison was 36 years of age.

Testis.—The unusually interesting and complex subject of cancer of the testicle has strangely enough produced only three terms of eponymic character. Louis Charles Malassez (1842-

1910), a French physiologist and pathologist, described characteristic cysts of the testicle, which, at least on the European continent, received wide recognition. Today this condition is rarely found as he described it, and if cysts are present, they are generally recognized as arising in the large group of mixed or teratoid tumors.

In 1906 Maurice Chevassu published his famous Paris thesis on seminoma of the testicle. He reviewed the literature carefully from the time of Monod and Terrillon, from 1888 to 1905, inclusive. His study comprised 90 unpublished cases. His careful detail of the histologic examination in the unicellular tumors has made his description a classic in testis cancer. Chevassu has maintained his interest in these tumors ever since and is not only one of the leading authorities on the subject, but an internationally known urologist as well.

In 1925 Gordon Bell, of England, in the course of a review of collected testis tumor material, which was published in two parts, recognized an unusual tumor arising from the adult tubules. This tumor, present in an older age group than the average, has a distinctive clinical course and justly deserves to be known as "Bell's tumor of the testicle"—at least in the opinion of James Ewing, who has studied these cancers extensively since 1911.

In 1930 Selmar Aschheim, in a study of tumors in women, added a brief note without detail concerning the hormonal study of a male patient with chorionepithelioma of the testicle. This case was added to 9 others by Bernhard Zondek and reported extensively in 1932. This method, known as the Aschheim-Zondek reaction, has added a new biologic approach to these complex tumors in both men and women.

Prostate.—Cancer of the prostate is a disease that has been clearly recognized only since the time of Sir Henry Thompson. It remained for the great master of the Necker Clinic at Paris, the immortal Félix Guyon (1831–1920), to recognize and describe the importance of the frozen pelvis in the male, known as the prostato-pelvic syndrome. Without the aid of roentgen diagnosis, he recognized the seriousness of this condition, based only on clinical examination of his patients, and he reported cases in 1887.

Ovary.—The study of the sex cell tumors involving the ovary roughly parallels that of the testicle. In 1896 Frederick Krukenberg reported 6 cases of metastatic tumors in the ovary in a 35-page article. The author was only 25 years old when he described this tumor, now well known throughout the world.

Julius Jarcho, in 1938, found an interesting case report in the Descriptive Catalogue of the Pathological Specimens contained in the Museum

nucleus and its division, in 1882 added to Virchow's aphorism omnis nucleus e nucleo. These laws are now fundamental to pathology.

Jean Bergonié (1857-1925) and L. Tribondeau (1872-circa. 1914), both of France, enunciated a fundamental law of irradiation of cancer therapy in 1906. This law states in effect that the sensitivity of cells to irradiation varies directly with the reproduction capacity of cells and inversely with their degree of differentiation.

For many years James Ewing has fought for a more precise limitation of the evidence in medicolegal relationship of trauma to cancer. He has listed five essential criteria in the study of such cases, which have now become generally accepted. A summary of his conclusions appeared in May, 1935. He generously gives credit to K. Thiem, in 1915, for an early statement of similar criteria, but full credit for an understanding of the importance of these postulates in medicolegal procedures belongs to Ewing.

# Summary of General Opinions For and Against the Use of Eponyms

Clifford Allbutt suggested a comprehensive nomenclature which fits the disease, and not only identifies it, but also helps to classify it. "A name then must be a seal, not a label." From this point of view eponymic names are ideal because they do not characterize the nature of the disease and their use is based more or less upon convention—in fact they are born very often from embarrassment because they designate a newly discovered but not yet fully recognized syndrome which cannot be designated by an incontestable term.

The custom of designating diseases by proper names (usually those of the discoverers), which the English and Americans prefer to call eponyms, is not very old. Such eponyms were mentioned only sparingly in the medical literature of the eighteenth century, and their use became more common only after the middle of the nineteenth century, reaching the peak at the present time. The reason for this increase is rarely due to the intention to create a permanent monument for the discoverer of the disease. The main reason for their use is doubtless the tendency of our modern age to express ourselves briefly, a tendency which we also find in other branches of human endeavor.

In 1912, Fielding Garrison wrote his only paper on the subject of eponyms and was so definitely set against their use that he never referred to them again, even in the four editions of his history. He comments that the use of adjective expressions derived from the names of persons and places is by no means confined to the medical sciences, but is probably coexistent with the history of

European culture. After a discussion of many of the most common terms in medicine and surgery, he states that it is evident from the examples cited, that no beneficent goddess, but only blind chance, has presided over the devising of eponyms. As His has pointed out, they have little to do with the distribution of historical justice, and the attempt to repair the omission by the use of the hyphen seems a rather clumsy expedient. Garrison concluded that it ought to be the aim of medical teachers and editors to prevent the growth of eponyms from becoming a nuisance or a fad. This could best be done by editorial revision of the titles of medical papers in which undesirable or unnecessary eponyms occur. He suggested that the college instructors might regard the indiscriminate use of eponyms as an evil, which, like all bad habits, could best be discontinued in its early stages, by nipping it in the bud. An improvement would be to give the name of the disease first, and let the bracketed eponym follow it.

Sir Humphrey Rolleston, in an entertaining paper in 1937, listed several advantages of eponyms, the first of which I believe extremely important, in that they may stimulate an interest in medical history; also, that the single name has obvious practical advantages over a cumbrous descriptive title; third, that the hyphenated eponym may suggest, and even contain in a nutshell, the early history of a disease. He mentions some of the drawbacks of eponyms: that they increase the student's not inconsiderable difficulties upon beginning a new subject: second, that the hyphenated eponyms are not always assigned with strict chronologic exactitude. Another drawback of the eponym habit, the outcome of hero worship, is that several diseases may be called after the same famous man, and a still further complication may be that two or more men may find their names attached to different diseases, signs, operations, tests, or injuries. He concludes that it may indeed be difficult, even for the elect, to deliver a correct eponymic judgment.

In the last Index to the Current List of Medical Literature, A. Seidell comments that the practice of designating diseases, operations, signs, etc., by the names of individuals greatly complicates the classification under subject headings. A count in a recent edition of Dorland's Medical Dictionary showed the following approximate numbers of proper names used in this manner: diseases, 565; syndromes, 165; operations, 450; signs, 525; tests, 916; methods, 300; phenomenon, 92; reaction, 150; reagent, 66. Thus in only these selected cases there are more than 3,200 names of individuals which add to the difficulty of searching the accumulated literature of medicine.

Transactions. Since then this has been known as the Bence-Jones test for protein, which produces a reddening of the urine on the addition of nitric acid. Otto Kahler (1849-1893) wrote on albumosuria in 1889 and is quoted in Europe regarding this obscure disease. In 1921 James Ewing of the Memorial Hospital in New York gave an inclusive description of a single case of bone tumor, now known as endothelial myeloma, which was promptly quoted in the world's literature as Ewing's sarcoma. This tumor is so unique that it has retained a separate classification in the Bone Tumor Registry of the American College of Ewing's brevity in confining this report to 8 pages compares with Paget's classic short report and again demonstrates that the master of a subject can state his case in a few concise words.

Gastrointestinal Tract.—It is rather surprising, in reviewing the literature of gastrointestinal cancer, which leads all others in statistical analysis, that very few eponyms are associated with it. The Bard-Pic syndrome describes the slow, painless jaundice and distorted gallbladder, with cachexia and loss of weight, indicating carcinoma of the head of the pancreas. This sign was defined in 1888 by Louis Bard and A. Pic, and is still of great aid in the differential diagnosis of obscure intra-abdominal cancer. Other signs were described by Troisier, Virchow, Strauss, and Blumer. Ludwig J. Courvoisier (1843-1918) described an extremely useful sign indicating the presence of extrahepatic tumors-if a gallbladder is much distended from obstruction of the common duct, tumor is the probable cause instead of calculus. This sign was described in 1890 in an extensive German monograph. 1884 Josef Thomaver (1853-1927) described a sign which distinguishes inflammatory from noninflammatory or malignant ascites; the mesentery shrinks, pulling the intestines in a pocket.

Metastases.—Charles Emile Troisier (1844-1919) in 1886 discussed three cases of metastatic cancer in a 5-page article. His name has since been attached, especially by the French, to enlarged lymph nodes above the clavicle, as a sign of metastatic intra-abdominal cancer. The primary tumor is usually in the stomach, but it may be anywhere in the abdominal cavity. The fame of Rudolph Virchow is also associated with the same phenomenon. However, the exact reference to his description is difficult to find and may have been passed along verbally by Virchow's many pupils. The report is published in Die Medizinische Reform, of 1849, a semipolitical journal, which aired views in sympathy with the revolutionary movement then in progress.

Hermann Strauss (1868- ) has been credited with an eponymic sign describing tumor

metastasis in Douglas' pouch, which projects into the rectum. However, recognition goes to George Blumer, who in 1909, in a 6-page paper in the Albany Medical Annals described what is now generally known as Blumer's rectal shelf, a diagnostic sign of great importance in the recognition of abdominal cancers. He was one of the few authors in this series who years later wrote again on the same sign, more extensively and in the same journal, in 1938.

Nerves.—Theodor Schwann (1810-1882), a German anatomist and physiologist, described the myelin sheath of the medullary nerve fibers. This tissue is so histologically distinctive that the tumors invading it are now known quite generally as schwannoma, although he did not study the neoplasms involving nerves.

In an extensive monograph published in German (1882) Friedrich D. von Recklinghausen (1833–1910) described as an entity multiple soft fibromas of the skin which had arisen from neuromas—hence the term neuromatous fibromas or neurofibromas. Much earlier Rudolph Virchow showed an excellent plate of the condition as a frontispiece in volume one of his famous treatise on tumors. Von Recklinghausen's description first appeared as a part of the Festschrift, in honor of the foundation of the Pathological Institute in Berlin, and was dedicated to Virchow.

#### Microscopic Grading

In 1920 Albert Broders, pathologist of the Mayo Clinic, devised a practical method of grading cancer and reviewed 537 cases of squamous cell carcinoma; 9 of them in detail with 12 illustrations. This paper was the first in which the clinical malignancy of a large series of cases was expressed numerically, with a high degree of accuracy. General observations had been made by early pathologists, especially since the time of von Hansemann in 1890 until 1902 when von Hansemann published his monograph. He popularized the term anaplasia (backward to form). As Broders has pointed out, this great study was considered of academic interest only and failed to be taken seriously by other pathologists. It is to Broders' credit that the application of such an index has been used and discussed since his contribution in 1920.

#### Laws and Postulates

It is rather difficult now to imagine the chaotic state of pathology and bacteriology previous to 1850. Rudolph Virchow (1821–1902), the greatest figure in the history of pathology, stated in 1858 that omnis cellula e cellula, or that a new growth of cells presupposes already existing cells. Later Walther Flemming (1843–1905), after publishing a masterly monograph on the

# Special Article

#### A COUNTY CANCER PROGRAM

J. Louis Neff, F.A.P.H.A., New York City

NASSAU County is a suburban area, situated on Long Island, adjoining the City of New York on the east. It has grown in twenty-five years from what was essentially a rural community of about 125,000 to a present population of nearly half a million, supporting war industries of considerable magnitude. Its county department of health is only five years old and the community has never been able to build hospitals fast enough to keep pace with its rapid population growth.

The work of a local cancer committee in such an area would therefore involve problems which might not be duplicated in other sections of the country. This record of our history for the past fifteen years is not intended, therefore, as an outline of what should be done in other local communities, and we hope that its purpose will not be misunderstood. Many of our problems, however, are basic, and perhaps a description of our efforts, our successes, and our failures might serve as an encouragement to other groups who are struggling with the same disappointments and the same discouragements and perhaps offer an inspiration to go ahead and do a better job in less time than it has taken us.

The Nassau County Cancer Committee was organized in 1928 as a branch of the New York City Cancer Committee, and was incorporated as a separate branch of the American Society for the Control of Cancer in 1937. Of the original nine corporate directors five were physicians, four of them past-presidents of the county medical society. There has always existed the closest possible relationship between the Committee and the

mittee and the Society.

The first activities of the Committee were the typical ones of preparing educational articles for the local newspapers and sending speakers to address meetings of local organizations of men and women. Almost at once we were met with the embarrassing situation of having patients consult physicians because of symptoms which might mean cancer, only to have the doctors advise them to "go home and forget it" or "come back in six months if it doesn't go away." We thereupon determined that it was of no value

to advertise to the public the possibility of cancer cure until more of the medical profession could be gotten into a frame of mind in which they would be willing to meet the patient at least halfway.

With the help of the county medical society we arranged a series of postgraduate lectures to be given by prominent cancer specialists. The extent of the local professional interest in the subject can be measured by the fact that in spite of considerable publicity given these lectures, including personal invitation, the attendance at the four sessions was incredibly small, reaching a low, at the final session, of three doctors and two public health nurses.

We thus learned not only what our first objective must be, but we also learned that this objective was fundamental and that it was not going to be easy to attain. We saw that we must provide or secure for the county the tools for cancer control and that these tools must include not merely the necessary x-ray, radium, and hospital accommodations, but that they also must include an enlightened medical profession which would understand the other tools and be enthusiastic about using them.

Remember that this was fifteen years ago; remember also that much of our present knowledge of the diagnosis and treatment of cancer is not much older than that. So it is not surprising that in 1928 our local doctors had not had much experience in looking for or in treating early cancer. Today the doctors in any community are thinking more about cancer than they were fifteen years ago, but this does not alter the fact that the support and assistance of the local practicing physicians is a basic "first" in any cancer control program.

Accordingly, we determined to reduce our contact with the general public to the minimum of giving authoritative advice when it was asked. We stopped our newspaper articles, we stopped our lectures, and we stopped our generalities about "see your doctor." Instead we began to provide postgraduate educational opportunities for the profession: lectures, exhibits, a cancer article every month in the bulletin of the county medical society. And we began to work toward the day when we should have a group of well-trained specialists who were genuinely interested in cancer control and a group of general

Presented at a preliminary meeting of the Annual Meeting of the American Public Health Association, October 11, 1943
Formerly Executive Secretary, Nassau County Medical Society and Secretary, Nassau County Cancer Committee; by Liccutive Director, American Society for the Control of Cancer.

In spite of these obvious difficulties, it is probable that certain major eponymic terms will survive in the medical literature of the future, and will continue to add biographical and historical interest to the subject.

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#### BIGGS MEMORIAL LECTURE ON APRIL 6

The Hermann M. Biggs Memorial Lecture, which is held annually in Hosack Hall at the New York Academy of Medicine under the auspices of the Committee on Public Health Relations, will be delivered this year on April 6 at 8:30 P.M. by Wilber A. Sawyer, M.D., director of the International Health Division of the Rockefeller Foundation The subject of Dr. Sawyer's address will be "International Health."

This lecture is open to the general public

year fifty-six public health nurses made 3,269 visits to cancer patients, exclusive of those made by the Cancer Committee's nurse.

During this period the Committee's nurse was serving as a liaison officer between the tumor clinic and the nurses of the health department and voluntary agencies, acting as a consultant in the more difficult cases and securing help for the clinic from the other groups as needed. So in a very real sense the Committee played a part in most of these visits.

With the nursing work being so well taken care of, the Committee's own nurse is now devoting part of her time to the organization of groups of volunteers, under the sponsorship of the Women's Field Army, who will collect old linens, salvage them, and make them into dressings to be given to cancer patients for use in their homes. This project is modeled after the splendid program developed by the New York City Cancer Committee. Far from being in conflict with the work of the Red Cross in preparing surgical dressings for the armed forces, this program, by salvaging and utilizing waste materials, is actually one of our contributions to the war effort.

Meanwhile, the Committee had not entirely neglected its responsibilities in educating the general public. As our other "tools" for cancer control began to develop in adequacy and usefulness, we gradually expanded these efforts. In 1937 a high school teacher who had heard one of our speakers address an adult audience invited us to send the same speaker to deliver the same lecture to her high school science club. With much misgiving, but at her earnest solicitation, we determined to make the experiment of talking about cancer to a group of adolescents. The results were surprising. The speaker reported that there had been more questions-and more intelligent questions—than he had ever been called upon to answer in all the cancer work he had done. Encouraged by similar experiments being made by the Cancer Committees of Westchester 1.5 and Suffolk counties in New York State and elsewhere in the country, our Board decided that work in the schools presented an opportunity which was more valuable than we had realized.

The financial situation of the Committee had improved to the point where we could now afford the services of another employee, and we decided that the new member of the staff would not be another nurse, as had been planned, but rather a person who could organize and conduct an expanded educational program for the general public.

Just as we had always left the education of the medical profession to the doctors themselves

and had utilized the services of our public health nurse to assist the doctors in bringing cancer education to the nursing profession, we determined that our public educational work must be done by a trained educator. Obviously such a person must have a background of scientific knowledge and training in public health education, but she also should have had training and experience in classroom teaching if she hoped to receive the respect of the teachers and of the school administrators. We found this combination of training and experience, and engaged the services of our first Director of Education in 1939.

After a preliminary survey of the cancer education work being done in other parts of the country, a public opinion poll was made of something over 4,000 people. When the results were compared with the figures published by Dr. Gallup and others, we found that while the general level of cancer knowledge in the county was higher than might have been expected, there was still plenty of work to be done. In spite of improvement in the stage of the disease existing in patients coming to the tumor clinic and reported to us by private physicians, the doctors at the clinic were still complaining: too late, too late, too late, too late.

Realizing that we could not hope to reach all the people in the county at one time, or by using any one method, we decided to approach the more accessible groups first, through speakers sent to regular meetings of existing organizations. During the past four years we have presented some four hundred such meetings to a combined audience of 37,000 people. But that isn't even a tenth of the total population of the county. Posters, exhibits, printed material, newspaper stories, added to the formal meetings, still do not reach all of the people. There is probably only one place where eventually most of the public will be reached, and that is in the public schools.

While developing the other phases of our educational program, therefore, we began the preliminary work of getting cancer education into the secondary schools. In 1939 we secured the assistance of a physician who had formerly been a high school principal and we started giving cancer programs before high school assembly sessions. The interest aroused among the pupils was such that several of the teachers asked for source material and teaching aids for use in their science classes. This resulted in the preparation of a tentative teaching outline which was distributed in mimeographed form in 1940.

After about two years nearly every high school in the county had had at least one assembly program on cancer and a significant practitioners who would be willing to utilize the services of this specialist group.

Probably the greatest step along this line was taken in 1933 with the organization of the Nassau County Tumor Clinic. This was a cooperative venture financed by the Cancer Committee, staffed with the help of the medical society and the local hospitals, and housed, temporarily, in a wing of the county tuberculosis hospital. From the start of the clinic the maximum possible use was made of the teaching opportunities it afforded. Under the direction of an able and enthusiastic consultant, and with the assistance of some of the staff of Memorial Hospital in New York City, the clinic held a weekly teaching conference where interesting new cases were presented for discussion and patients were shown for the follow-up observation of treatment.

How well this clinic and its teaching conferences succeeded in arousing the interest of the medical profession can be gathered from the fact that on the coldest day in the history of Long Island a session of the conference addressed by a prominent New York specialist induced no less than seventy-five doctors to drive to the farthest margin of the county over ice- and snowblocked roads. This was just five years after our humiliating experience, when we confronted another New York visitor with an audience of three doctors and two nurses. Another significant sign of the progress we had made is contained in the figures on admissions for the first year of the clinic. The clinic saw 353 new patients. Fifty of these were transferred from other institutions; the remaining 303 patients were referred to the clinic by one hundred fortyone physicians and three dentists.

The tumor clinic is now the tumor service of Meadowbrook, the county general hospital. The teaching conferences are still being held, and up to the outbreak of the war they were attracting a weekly attendance of forty-five doctors. When the loss of doctors to the forces caused a demand that medical meetings be cut to an absolute minimum, spontaneous requests from many physicians kept the conferences from being discontinued. At present they are scheduled for once a month, but the attendance and the interest still hold up in an encouraging fashion.

Almost as soon as we opened our clinic we discovered the need for follow-up work and home visits. This work involved a great deal more than a mere tracing of patients who had missed appointments to return to the clinic or a visit to convince the family that they must take back into the home a patient who was no longer under active treatment but who was occupying a bed needed by a patient for whom surgery or radium was urgently required. To be sure, that was

our first conception of follow-up work, but fortunately we were well advised and secured the services of a trained public health nurse for this service. It soon became apparent that this nurse was doing a real job of social service as well as of nursing. Because we could afford to hire only one nurse, she was forced to seek the help of other community agencies to secure bedside nursing care, financial assistance from the welfare department, perhaps coal, food, or clothing from some private agency, or some kindly neighbor who would stay with the children while the mother came to the clinic for examination or treatment.

When the clinic was taken over by the county hospital, the Cancer Committee loaned its public health nurse to the social service department of the hospital and with her help the clinic during its entire ten years' history has maintained an admirable record of continuous follow-up and observation of all its patients.

With the organization of the county department of health in 1938 we sought the assistance of its division of nursing.<sup>2,3</sup> It was agreed that before these nurses took over the burden of caring for the cancer patients in the home and the follow-up work for the Tumor Clinic they should be given an opportunity for postgraduate training.

A series of nineteen lectures was arranged by the staff of the Committee and the consultant to the Tumor Clinic. These lectures were given in sixteen consecutive weeks by members of the professional staff of the clinic. Attendance was requested of the health department's nurses, and an invitation was extended to the nurses employed by the various voluntary agencies of the county, including the insurance companies.

We were gratified at the attendance. Practically every public health nurse in the county registered for the course; nearly all of them attended every session.

Following the formal lectures, each nurse was given eight days of additional training in the hospital under the direction of the Committee's nurse, with the assistance of the professional staff of the hospital. Here they learned about the tumor service from the social service department and admitting office to the autopsy room and pathologic laboratory. They worked on the wards, helped in the outpatient clinic, observed the administration of radium and x-rays, and absorbed much of the philosophy of the institution as well as a knowledge of its problems and of the importance of attention to detail in cancer control work. While cold figures never can give a true picture of the importance of such a project, it is interesting to note that last

- 4. Adie, G. C., and Charlton, H. R.: J.A.M.A. 120: 10,752 (November 7) 1942.
  5. The Westchester Cancer Committee: Youth Looks at Cancer, Bronxville, N. Y., Bronxville Press, Inc.,
- Bliss, M. F.: The Evaluation of Community Health Education Programs, Yale University, New Haven, Conn., 1943—unpublished dissertation.

7. Gallup, George: Bull. Am. Soc. Control Cancer 21: 7 (June) 1939; 22: 8 (May) 1940. 8. Millen, R. S.: M. Times & Long Island M. J. 68: 324

8. MHER, A. S.: A. (July) 1940.
9. Mosback, C. R., Coon, E. H., and Bliss, M. F.: J. Health & Phys. Educ. 14: 365 (September) 1943.
10. Martin, A. C.: M. Times & Long Island M. J. 71:

#### CANCER REMEDIES

Even in the midst of war, purported cancer remedies continue to appear. The most recent flurry is concerned with an English preparation known as "H 11." This is an extract of urine that is supposed to have tumor-inhibiting properties. As usual, the earlier reports appeared promising but the later give

little, if any, hope that the substance is of value.

The material, prepared by Thompson, 1,2 has been utilized by several groups for therapy of both human cancer and induced as well as spontaneous transplantable cancer in animals.3,4 In one series of 51 advanced cases of cancer, 37 cases received dosages that might be regarded as sufficient for fair clinical trial. Among these, 11 died and the results were unknown in 5 cases. The longest period of survival was eighteen months. All the patients surviving, except two (who lacked biopsy proof of the presence of cancer) had some other form of therapy in addition to H11. In none of the cases in which H 11 was used did the growth disappear. There was a suggestion of slight clinical improvement in some cases, but this has often proved to be misleading in evaluating remedies.

The evidence seems to indicate that this urinary extract is without value as a therapeutic agent in cancer.-Editorial in New England J. M., Jan. 6.

<sup>1</sup> Thompson, J. H., Holt, P. F., Forbes-Jones, R., Haydn N., and Kennedy, G. Y.: M. Press 205: 334-342 (1941).

<sup>2</sup> Thompson, J. H., Holt, P. F., and Jones, R. F.: Nature

151: 23 (1943).

<sup>2</sup> Gye, W. E., Ludfort, R. J., and Barlow, H.: Brit. M. J. 2: 65-67 (1943).

Woodhouse, D L.: Brit. M. J. 2: 231, (1943). Kidd, H. A.: Brit. M. J. 2: 67 (1943).

#### BRAZIL AND UNITED STATES COOPERATE AGAINST INSECT-BORNE DISEASES

Brazil and the United States have broadened their cooperation in the field of health and sanitation to include measures to prevent the spread of insect-borne diseases from Africa to the Western Hemisphere.

These measures are in recognition of the hazards from insect-borne diseases as a result of greatly increased wartime air traffic between African airports and Brazil, hopping-off place and arrival point for

heavy transatlantic air traffic.

Brazil is expected to designate two public health officers to act as liaison officers with United States Army authorities in African ports, under an arrangement made in a recent conference between Dr. Fabio Carneiro de Mendonca, of the Brazilian Ministry of Education and Health, and Lieut. Colonel Karl R. Lundeberg, of the Office of the Surgeon General, United States Army. The Brazilian doctors will work with United States Army officers on the sanitation of aircraft departing for Brazil from Africa.

This arrangement supplements the extensive cooperation between Brazil and the United States for control of malaria and other tropical diseases in the Amazon Valley and in the Rio Doce Valley, sources of strategic materials for Brazilian and United States industries.

Extension of malaria control measures in Brazil and other countries in Latin America is being carried out partly in recognition of the disease hazards resulting from the increase in air transport. Many new airports have been built in the Western Hemisphere in the last few years and air travel and freight is on the largest scale in history, augmented by transatlantic air travel by way of Brazil and Africa.

Airline operators anticipate continuation of inter-American air travel at a high level after the war. Many United States lines, in fact, have applied to the United States Civil Aeronautics Board for permission to establish new air services to Latin America after the war.-Release from the Office of the Coordinator of Inter-American Affairs

#### OUR RICE BETTER THAN JAPS!

Eating your rice cake and having your vitamins too is now possible because of a revolutionary method in rice milling. Millers in thirty-six countries are licensed to use this new method. Japanese mills are not licensed and, as far as we know, they still use the orthodox method. This is what happens (we hope) to Jap rice: Machines

first remove the husk, which contains vitamin Bi; then the germ and bran, which are rich in fat. minerals, and vitamin B complex.

By using the new method, the vitamin, fat, and mineral content of the husk and bran are transferred to the kernel before the rice is husked and polished.-Health and Nutrition News Letter

number of them had also made use of the tentative teaching outline. We then made a careful survey of the cancer education work being done in all the schools of the county and asked for suggestions from those schools which were using the teaching outline. The information thus secured was presented to a specially selected group of teachers, school administrators, and physicians, who prepared a revised outline which was published in printed form in 1942. We believe that this represents the first attempt made to give to secondary school teachers a complete teaching unit on this subject. A recent survey of those schools which had accepted our unit showed that it has been widely used and well received. It has also served as a prototype for similar units prepared in several other sections of the country, and we hope that these several experiments will eventually culminate in a truly complete unit.

The war has affected our program. We are no longer able to secure as many invitations to present programs to meetings of organized groups, and, of course, we are no longer finding it easy to secure the services of our doctor-lecturers. We have even been unable as yet to arrange the planned series of lectures to the science teachers who are using the teaching unit. On the other hand there is an increased amount of time being given to the teaching of health in the secondary schools, so the acceptance of our school program is perhaps easier to accomplish.

In our educational work we attempt to avoid distributing literature with complete information except to persons whom we know to be interested. Leaflets in banks, drug stores, and other public places include the "danger signals" and an invitation to seek further information from the Committee. When such requests are received, they are not answered by mail; the public health nurse makes a home visit to find the reason for the inquiry and to give detailed advice. Only rarely are these visits completely "wasted" and we have gotten into the hands of the physicians enough cases of early cancer to justify completely this personalized service.

What of the future? Well, we realize that we haven't even scratched the surface as yet, in spite of all the work we have done and in spite of the small measure of success we have achieved. The blueprint for the future, then, can be quickly drawn: more of the same.

Without question the most important part of our future program is the continuation of our educational activities both for the professions and the general public. Until every practicing physician makes the speculum and the endoscope as much a part of his regular kit of tools as are his stethoscope and his blood pressure apparatus

-or until he becomes willing to send every suspected case to a specialist for careful study-we shall continue to learn of missed cases of cancer of the body cavities and canals. As long as a single physician, dentist, or nurse tells a patient to "wait and see if it goes away," our hospitals will continue to admit patients with inoperable cancer of the breast, melanomas which have become disseminated to all parts of the body, and other similar tragedies. The "magic pill" for the treatment of sudden indigestion is just as dangerous in the doctor's office as it is on the radio program. The patient who has heretofore enjoyed good health, who suddenly develops indigestion which does not yield promptly to treatment, is at least entitled to careful examination, not forgetting the possibility of x-rays.

The public educational program should continue to expand and should become both more specific and more personal. We have come to the conclusion that it is of more value to discuss cancer in an intimate fashion with a small group than to depend upon more formal lectures before large audiences. A hundred women duly overawed by a lengthy scientific exposition might remark to their friends that they heard a marvelous lecture on cancer, but ten women who have been really instructed and indoctrinated in a small discussion group will begin sharing their knowledge with their friends and will start giving specific advice to "see your doctor" when they learn of a definite situation. We are pleased that our medical friends in the county agree that results are beginning to show.8, 10

A prominent surgeon—not in Nassau County is very proud of his ancient cliché that "you can't cure cancer by advertising," and uses it to justify his opposition to an organized cancer education program. Not long ago this same surgeon, in an address to a medical group, complained that patients were not coming to him early enough in the disease. Let's admit that you can't cure cancer by advertising, but let us also point out to him that he, in turn, cannot cure late cancer. Whether you call it health education, propaganda, or advertising, the only way by which the surgeon will get patients at a time favorable for therapy is by finding some way to reach both the potential cancer patient and the practicing physician, and to make them realize, in a way they will never forget, that the thing most to be feared about cancer is delay.

#### References

<sup>1.</sup> Neff, J. L.: M. Times & Long Island M. J. 63: 217 (July) 1935.
2. Neff, J. L., and Bhiss, M. F.: Bull. Am. Soc. Control Cancer 22: 5 (October) 1940.
3. Bliss, M. F., and Randle, B. B. Pub. Health Nursing 33: 474 (August) 1941.

#### Honor Roll

#### Medical Society of the State of New York

### Member Physicians in the Armed Forces

#### Supplementary List

The following list is the seventeenth supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, December 15, 1943, January 15, February 1, and February 15, 1944, issues.—Editor

A Abram, F. Kings County Hosp., Brooklyn 3, В Berk, R. 6717-21 Ave., Brooklyn 4, N.Y. C Cimildoro, U. 135 W. 4 St., Oswego, N.Y. D Dillon, E. J. Phoenix, N.Y. Ehrlich, J. C. 151 Central Park West, New York 23, N.Y. F Farber, R. 280 Monroe Ave., Rochester 7, N.Y.

280 Monroe Ave., Rochester 1, 1992. Flore, P. P. 20 Plara St., Brooklyn 17, N.Y. Friend, M. R. (Lt.) Army & Navy Gen. Hosp., Hot Springs, Ark.

G Genvert, H. (Capt.) APO 9301 c/o P.M., New York I, N.Y.

Hamburger, W. (Capt.)
APO 515, c/o P.M., New York 1,
N.Y.
Hardy, S. M.
Lederle Laboratories, Pear River,
N.Y.

L Lazarus, E. E.
562 West End Ave., New York 24.
N.Y.
Lewis, M.D.
31 Gibbs St., Rochester 4, N.Y.
Lieberman, N. 198 Linden Blvd., Brooklyn 26, N.Y.

McKinstry, G. C. 206 Park Ave., Rochester 7, N.Y.

Romm, B. I. 6901–21 Ave., Brooklyn 4, N.Y. Rost, A. E. 212 Ten Broeck Ave., Kingston, N.Y.

Rothschild, E. S. (Lt.) Camp Marey, Tex.

Shelton, H. Z. Orangeburg, N.Y. Simon, S. M. 3853 Dartmouth Ave. N., St Petersburg, Fla.

Taylor, G. B. \_ 258 Genesee St., Utica, N.Y. Tocco, D. 1601 Broad St., Endicott, N.Y.

Ulman, R. A. 1171 E. Delavan Ave., Buffalo 15, N.Y.

11 Warren, S. L. Strong Memorial Hosp., Rochester 7, N.Y. Wasserstrom, S. S.

Hotel Granada, 268 Ashland Pl., Brooklyn 17, N.Y. Willis, W. H. (Capt.) APO 4518 c/o P.M., New York 1

Wortis, J. 152, Hicks St., Brooklyn 2, N.Y.

# LOS ANGELES COUNTY NEEDS DOCTORS FOR CIVIL SERVICE POSITIONS

Physicians, M.D., Anesthetists, M.D., and Residents, M.D. (Otorhinolaryngology) are wanted for positions in the Los Angeles County General Hospital and other County institutions, according to an announcement made by the Los Angeles County Civil Service Commission.

For the \$290 to \$344 a month positions as Physician, M.D., and Anesthetist, M.D., candidates are required to be graduates of an approved medical school, to have appropriated at least pine months' school, to have completed at least nine months' internship in an approved hospital, and to be under 55 years of age.

Applications for the Residencies paying \$158 a month will be accepted from persons of all ages who meet the above requirements.

Candidates for all positions must submit with

their applications their photographs taken within two years and the names of two physicians qualified to evaluate their professional training and experi-

Candidates for the Residencies must submit in addition the names of the medical schools from which they graduated and the places, types, and duration of their internships and prior residencies. Applications for the Resident and Anesthetist

positions must be filed on or before March 11, 1944. Applications for the Physician, M.D., will be received until March 4, 1944.
Full information and applications regarding these

positions may be obtained from the office of the Commission, 102 Hall of Records, Los Angeles 12, California.

# Special Article

#### PRESCRIPTION AGAINST INFLATION

Berton Braley, New York City

THE toughest part of the problem of inflation is to make the individual realize that it concerns him, personally; that it isn't a vast abstraction expressed in billions but a matter affecting the family budget and the office accounts, intimately.

Some so-called "economists"—the lunatic fringe of them—pop up every so often with the assertion that a little inflation is a good thing. Which is like saying that a little blood poisoning

is a good thing.

But the cold historical fact is that inflation—little or big—has always lost money, security, and peace of mind for everybody.

And as a student of its causes and an observer of its effects, I can't help thinking that, of all professions, physicians stand to suffer most from the upward spiraling of prices.

The case of a doctor and of a doctor's cases would be pretty serious if the inflationary trend

really got to trending.

For doctors are notoriously slow in collecting their bills, or perhaps it's truer to say that patients are notoriously slow in paying them.

Either way, in a rapidly rising "spiral" of prices—which is inflation—the physician might find that, after waiting six months for payment of a hundred dollars' worth of services, his hundred dollars would buy only fifty dollars' worth of food, clothes, gas, or medical supplies.

Everything he bought for his professional work or his family living would advance on a similar scale. In other words, the dollar he collected would be worth half the dollar he charged.

Theoretically, he could double his charges, but practically a doctor's fees are not so elastic as all that. They're pretty well fixed by his professional reputation and his own business tradition. And even if he did raise his fees, he could never be certain—in a runaway inflation—that what he collected would be worth what he charged.

He could do a cash business? How many doctors have had that kind of practice since the days of Hippocrates—and I'm betting he didn't.

There is another way in which inflation would be tough on the physician—because it would be tough on his patients. The money that they would ordinarily pay him—at least eventually—would be entered in the losing race against rising prices, and the margin left with which to pay the doctor would shrink as the value of the dollar shrank. "Eventually" would be further away than ever, and the "buying power" of what the doctor got would be less and less.

The only benefit the physician might get out of his patients' struggle to keep even in an inflationary period would be an increase in neurologic cases, and treatments for price-shock. But that would probably be balanced by the loss of patients who felt they couldn't afford the cost of medical attention when food, clothing, and rents were so high.

Those are the special and peculiar ways in which the physician would suffer from inflation. And he'd suffer in the ordinary ways, too, like everybody else—his increased earnings, if any, more than absorbed by soaring prices, his savings and investments worth less because they would purchase less.

All right, that's what inflation would do to the doctor. What can the doctor do about inflation?

He can do about what he is doing.

Like most Americans, the physicians, without definitely realizing it, have been doing a splendid job in the fight against inflation. They have observed ration rules and price ceilings. They have bought economically and refused to rush into the market to compete for scarce goods. They have invested their surplus in savings accounts, life insurance, and war bonds, thus taking a tremendous amount of "dangerous money" out of the market for goods. They've paid their taxes and haven't boosted their charges to compensate for it.

What the doctor can do to prevent inflation is to carry on in that same economical, provident way. So long as the doctor keeps that up, along with the rest of the workers, he won't need to worry much about "runaway inflation."

Basically, it's the individual who decides whether we have inflation or not, and if the individual doctor, like the individual layman, continues to fight inflation by "holding the line" or his part of it, personally, then "it won't happen here."

The average human heart, weighing about onehalf pound, generates enough energy in twelve hours to lift a tank car of 65 tons one foot from the ground.—Science News Letter

# Medical Legislation

Bulletin No. 4 Issued by the Legislative Bureau of the Medical Society of the State of New York, February 24, 1944

ON FEBRUARY 23, Senator Seelye and Assemblyman Brees introduced a chiropractic bill. It is an amendment to the Brees bill of 1942. principal amendment authorizes the Regents to create an examining board to be composed of four chiropractors and one physician. It further provides that all persons who are now practicing in the State and have been bona fide residents of the State for at least one year, may take a special examination in the principles and practice of chiropractic and those who successfully pass it shall be licensed to practice chiropractic. After 1949 the qualifications for entering the examination must be that the ap-plicant shall have had a high-school course and two years of study in a registered college of liberal arts and shall have graduated from a school or college teaching chiropractic registered by the Department of Education. The course of study shall include not less than 3,600 hours in the following subjects: 'iemistry, hygiene, pathology,

chiropractic analysis, x-ray as it relates to chiropractic analysis, and the principles and practice of chiropractic. The examinaciples and practice of chiropractic. The examina-tion for the last three subjects shall be conducted by the chiropractic members of the Board alone.

It will be said by the chiropractors and their supporters that this bill requires an examination of every chiropractor before he becomes licensed and that the bill has no waiver clause. This is only partly

As you will observe, the examination that the present practitioner must take does not include the subjects of anatomy, physiology, chemistry, hygiene, pathology, bacteriology, or diagnosis, but is limited entirely to an examination in the technic of chiropractic; that is, in other words, the State will have no assurance from an examination and licensure under this bill that the applicant is qualified to recognize any disease or pathologic condition other than, probably, a subluxated vertebra. The chiropractor's office will be open to all sick people and from the sign on the door the sick person will not know that the chiropractor is not so well trained and qualified to diagnose his illness as any physician whose advice he may have sought.

It is surprising or significant that the chiropractors did not wait until the committee appointed by the Legislature for making a study of chiro-practic laws could submit its report. As soon as the bill is printed we shall see that a copy of it goes to each chairman of the county committees and we shall have extra copies for those who may want

especially to study it.

This is an exceedingly important matter and we urge that you give it your immediate careful atten-May we suggest that you ask your legislators, both senators and assemblymen, to use their influence in having the minutes of the chiropractic investigating committee printed. Stenographic minutes were taken at each hearing and copies of these are in the hands of the members of the committee, but no one else. Each legislator should have the privilege of looking over those minutes and seeing for himself what was said by the chiroprac-tors the physician and the learners who appeared tors, the physicians, and the laymen who appeared before the committee.

Other Bills Introduced

Senate Int. 426-Baum, repealing provision for State aid to tuberculosis patients. Referred to the Finance Committee.

Comment: Same as Assembly Int. 461—Stuart, reported in Bulletin 3.

Senate Int. 427—Baum; Assembly Int. 623-Stuart, provides that the State Health Commissioner shall cause to be made, instead of shall make, examination and inspection of sanitary conditions of State institutions and furnish a report to the department head instead of to the president of the board or other authority in charge of the institution, and to the Standards and Purchase Division. Referred to the Health Committees.

Senate Int. 428—Baum; Assembly Int. 622—Stuart, strikes out the provision that local boards of health and health officers shall provide suitable places for treatment and care of persons with infectious and contagious or communicable diseases, who cannot otherwise be provided for. Referred to the Health Committees.

Comment: Deletes the provision that the Department of Health shall provide places for treatment, since the Department of Social Welfare now has charge of the treatment of all cases. Since this provision was made in the law, the Department of Social Welfare has been given the responsibility of the care of sick persons who cannot otherwise provide for themselves, and to have the same provision in two laws may occasion duplication and confusion.

Senate Int. 463—Duryea, relative to the removal of fire and health hazards from property. Referred

to the Internal Affairs Committee.

Comment: Same as Assembly Int. 552—J. D. Bennett, reported in Bulletin 3.

Senate Int. 523-Joseph, established in the Education Department two State victory medical colleges, to be equipped for instruction for 4,000 students each and to be located on sites to be selected by the education commissioner, which may be adjacent to a State hospital; Regents shall provide for five tuition-free scholarships, in number equal to five times the number of senatorial districts; \$10,000 is appropriated for selection of sites and \$50,000 is allocated from postwar reconstruction fund for plans. Referred to the Finance Committee.

Senate Int. 589-Seelye; Assembly Int. 813-Brees, chiropractic bill described above. Referred

to the Education Committees.

Assembly Int. 602—Pillion, relative to persons inducted into military service who are licensed to practice medicine. Referred to the Education

Comment: Same as Senate Int. 371-Burney, reported in Bulletin No. 3.

Assembly Int. 706-Mitchell, regarding purchase of oleomargarine or other butter substitutes. Referred to the Agriculture Committee.

Comment: Same as Senate Int. 381-Wicks,

reported in Bulletin 3.

Assembly Int. 740-Fogarty, provides that an employee mentally disabled as a result of an acci-

# . Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.

#### Tropical Medicine

LECTURE entitled "The Present and Postwar A Importance of the Malarias and the Dysenteries" was given before the Cortland County Medical Society, at the Contland County Hospital in Cortland. This meeting was held on February 18 at 8:30 P.M.

Dr. Barton F. Hauenstein, assistant professor of medicine at the University of Buffalo School of Medicine, was the speaker.

This instruction was presented as a cooperative

endeavor between the Medical Society of the State of New York and the New York State Department

On Friday, March 17, 1944, 8:30 P.M., at the Cortland County Hospital, the society will hear "The Diagnosis and Treatment of Anemia," a lecture delivered by Dr. Ellery G. Allen, associate professor of clinical medic of clinical pathology at - . lege of Medicine.

#### The Neuroses

A SINGLE lecture has been arranged for the St. Lawrence County Medical Society. "The Neuroses: Related to the Manic-Depressive Constitution" will be the title, and the speaker will be Dr Foster Kennedy, professor of clinical medicine (neurology) at Cornell University Medical College of Many York City. SINGLE lecture has been arranged for the St. in New York City.

The meeting will be held on March 9, 1944, at

1:30 r.m., at the Hepburn Hospital Nurses' Home in Ogdensburg.

The same lecture, "The Neuroses: Related to the Manic-Depressive Constitution," will be given by Dr. Kennedy at a meeting of the Jefferson County Medical Society on March 9 at 6:30 PM The meeting will be at the Black River Valley Club in Watertown.

#### Penicillin Therapy

JOINT meeting of the Onondaga County A Medical Society and the Syracuse Academy of Medicine will be held on March 7 at 8:30 P.M. at the University Club, Syracuse.
Dr. James E. McCormack, instructor in medicine

at New York University College of Medicine, will give a lecture entitled "Penicillin Therapy." This instruction will be provided by the Medical Society of the State of New York in cooperation with the New York State Department of Health

The DeLamar Institute of Public Health College of Physicians and Surgeons Columbia University

#### Announces

An Intensive Program of Instruction in Certain Aspects of

#### TROPICAL MEDICINE

In the period March 20-May 13, 1944

For further information address:

The Director DeLamar Institute of Public Health 600 West 168th Street, New York 32, New York

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Senate Int. 426-Baum, repealing provision for State aid to tuberculosis patients. Referred to the Finance Committee.

Comment: Same as Assembly Int. 461—Stuart,

reported in Bulletin 3.

Senate Int. 427-Baum; Assembly Int. 623-Stuart, provides that the State Health Commissioner shall cause to be made, instead of shall make, examination and inspection of sanitary conditions of State institutions and furnish a report to the department head instead of to the president of the board or other authority in charge of the institution, and to the Standards and Purchase Division. Referred to the Health Committees.

Senate Int. 428—Baum; Assembly Int. 622—Stuart, strikes out the provision that local boards of health and health officers shall provide suitable places for treatment and care of persons with infectious and contagious or communicable diseases, who cannot otherwise be provided for. Referred to the Health

Comment: Deletes the provision that the Department of Health shall provide places for treatment, since the Department of Social Welfare now has charge of the treatment of all cases. Since this provision was made in the law, the Department of Social Welfare has been given the responsibility of the care of sick persons who cannot otherwise provide for themselves, and to have the same provision in two laws may occasion duplication and confusion.

Senate Int. 463—Duryea, relative to the removal of fire and health hazards from property. Referred

to the Internal Affairs Committee.

Comment: Same as Assembly Int. 552-J. D.

Bennett, reported in Bulletin 3.

Senate Int. 523-Joseph, established in the Educa-tion Department two State victory medical colleges, to be equipped for instruction for 4,000 students each and to be located on sites to be selected by the education commissioner, which may be adjacent to a State hospital; Regents shall provide for five tuition-free scholarships, in number equal to five times the number of senatorial districts; \$10,000 is appropriated for selection of sites and \$50,000 is allocated from postwar reconstruction fund for plans. Referred to the Finance Committee.

Senate Int. 589-Seelye; Assembly Int. 813-Brees, chiropractic bill described above. Referred

to the Education Committees.

Assembly Int. 602-Pillion, relative to persons inducted into military service who are licensed to practice medicine. Referred to the Education Committee.

Comment: Same as Senate Int. S71-Burney,

reported in Bulletin No. 3.

Assembly Int. 706-Mitchell, regarding purchase of oleomargarine or other butter substitutes. Referred to the Agriculture Committee.

Comment: Same as Senate Int. 381-Wicks,

reported in Bulletin 3.

Assembly Int. 740—Fogarty, provides that an employee mentally disabled as a result of an acci-

dent arising out of employment subject to workmen's compensation shall be entitled to receive medical care and maintenance in a public hospital or institution at the expense of the employer and without deductions from award. Referred to the Labor Committee.

Mr. Fogarty carried this bill in Comment:

1942. It died in committee.

Assembly Int. 768—Bormann, requires the Mental Hygiene Commissioner to provide for treatment and care of honorably discharged veterans of World War II who were discharged for mental deficiency and were residents of the State at the time of entry into the service and who are ineligible for hospitalization in U.S. Veterans' Administration Facilities because of nonservice connection; \$500,000 is appropriated. Referred to the Ways and Means Committee.

Assembly Int. 803—Crews, provides that junior professional service for civil service grades shall include practical nurses, instead of hospital nurses, and requires the salary standardization board to reallocate positions requiring training in graduate nursing to appropriate grade for professional serv-

Referred to the Civil Service Committee.

Assembly Int. 807-Milmoe, relating to the sale of eyeglasses, spectacles, lenses, etc. Referred to the Education Committee.

Comment: Same as Senate Int. 328-Young, reported in Bulletin 3.

Senator Coughlin has introduced a bill providing for the creation in the Executive Department of a tobacco control division to regulate and control the manufacture, sale, and distribution of tobacco products and to prevent adulteration by harmful and habit-forming drugs. He and Assemblyman L. Bennett have introduced a bill which would evtend unemployment insurance provisions to persons employed in the preparation and handling of food for human consumption in hospitals, educational, and religious institutions.

Senator Mahoney and Assemblyman Mailler introduced a bill postponing the effective date of the law enacted in 1942, requiring that hospital interns and clinical clerks be graduates of or students in schools approved by the State Department of Education, until July 1, 1945.

Committee on Legislation JOSEPH S. LAWRENCE Executive Officer

#### Announcement

#### Malpractice Defense and Insurance

The Council has directed that announcement be made to the membership that at its meeting on February 9, 1944, it adopted recommendations of its Committee on Malpractice Defense and Insurance that certain reductions in insurance costs under the Group Plan, and other changes, be made, which will become effective for all new and renewal policies dated on or after April 1, 1944. These have been recommended by the Society's insurance representative, Col. H. F. Wanvig, after review of the cost of operating the Malpractice Plan of the Medical Society of the State of New York for the eight years ending December 31, 1943.

(a) Reduction of the premium rate for the minimum policy of \$5,000/\$15,000 from \$32 to \$30.

(b) Reduction of the present table of percentages added to the base rate for limits in

excess of \$5,000/\$15,000 by approximately 10 per cent.

(c) Reduction of the present surcharge for cosmetic plastic surgery granted to members deemed to be professionally and ethically qualified for this specialty, from 50 per cent to 10 per cent.

(d) Reduction of the surcharge for x-ray therapy from \$30 to \$15.

(e) Reduction of the cost of a minimum policy for members serving in the armed forces from \$15 to \$9 but amending the coverage to provide that the company shall be liable only for suits and claims filed against the policyholder in the United States.

(f) Amending the policy contract so as to include protection on account of copartnership liability without additional charge.

Amplification of these changes will appear in the Annual Report of the Council, to be published in the April 1, 1944, issue of the New York State Journal of Medicine.

COUNCIL COMMITTEE ON MALPRACTICE DEFENSE AND INSURANCE

#### Medical News

#### Baehr Resigns as OCD Medical Chief\*

THE United States Office of Civilian Defense announces the retirement of its Chief Medical Officer, Dr. George Baehr, March 1, after two and a half years of service. He will be succeeded by Dr. W. Palmer Dearing, who has served as Assistant Chief Medical Officer since the establishment of the Medical Division of the Office of Civilian Defense.

Many months before the attack on Pearl Harbor, the Medical Division of the Office of Civilian Defense was assigned the responsibility for the protection of the civil population of the country and of its outlying territorial and insular possessions against the hazards of enemy attack and other wartime disasters.

In June, 1941, Dr. Baehr was authorized by the Surgeon General, U.S. Army, to resign a re-serve commission in the Army to accept a com-mission as Medical Director in the United States Public Health Service for assignment to the newly created Office of Civilian Defense to organize its Medical Division. Under his direction a staff of technical experts was assembled, Regional Medical and Sanitary Engineering Offices were established, and an Emergency Medical Service was organized in every state and local community throughout the country. An organization for protection against war gases was set up in the coastal states and in the major industrial centers in the interior, many thousands were trained in the technics of rescue work, and a program of passive protection and mutual aid for water supply systems and sanitation facilities has been established in all States.

Other achievements of the Medical Division include the establishment of a nation-wide system of Casualty Receiving Hospitals, 321 potential Emergency Base Hospitals in twenty coastal states, 180 hospital blood and plasma banks, reserve depots of dried and frozen plasma in 400 cities, more than 120 affiliated hospital units, each consisting of 15 physicians, surgeons, and specialists commissioned in the Reserve of the U.S. Public Health Service, and 80 emergency nursing units, each comprised of 22 nurses. At the instigation of the Medical Division and with its assistance, 150,000 Volunteer Nurses' Aides have been trained under the Red Cross for wartime volunteer service in hospitals.

In recognition of his services to the hospitals of the country in time of war, the American Hospital Association at its recent annual meeting voted a special citation to Dr. Baehr and elected him to

honorary membership.

On his retirement as Chief Medical Officer, Dr. Bachr will resume the professional and teaching responsibilities in New York City which he laid down when called to duty in June, 1941, in anticipation of the entry of the United States into the world conflict. He is clinical professor of medicine at the College of Physicians and Surgeons of Columbia University, chief of the First Medical Service at the Mount Sinai Hospital, New York, and a trustee of the New York Academy of Medicine. In 1915 and 1916, he served in the Balkans and in Russia as a member of the American Red Cross Sanitary Commission to combat epidemic typhus fever. After our entry into the last war, he was called into military service and served in France with the American Expeditionary Force as Commanding Officer of Base Hospital No. 3. He has served also in recent years as a member of the Public Health Council of the State of New York, the technical board of the Milbank Memorial Fund, the scientific board of the Institute of Public Health Research, and as Chairman of the Committee on Public Health Relations of the New York Academy of Medicine.

#### Piersol Is Director of New Physical Medicine Center

DR. GEORGE MORRIS PIERSOL, professor of medicine in the Graduate School of Medicine of the University of Pennsylvania, a past president of the American College of Physicians, and a member of the Council on Physical Therapy of the American Medical Association, has been appointed director of the new Center for Research and Instruction in Physical Medicine in the Graduate School of Medicine of the University, it was announced today.

To establish this Center the National Foundation for Infantile Paralysis recently made a grant totaling \$150,000 for a five-year period from January 1, this year, to December 31, 1948.

Dr. Piersol, whose appointment was announced by Dr. Thomas S. Gates, president of the University, will relinquish his private practice to direct the Center, one of whose objectives is to explore thoroughly the possibilities of physical means of treatment of the control o treatment, not only of infantile paralysis, but of other diseases as well.

The National Foundation for Infantile Paralysis and the University of Pennsylvania are most fortunate," said President Gates, "in obtaining the services of Dr. Piersol, who has a rich experience as a clinician and teacher, to head this Center, which is to study and teacher, and the control of the control of

to study and develop physical medicine through in-

"The opportunity thus offered to explore the possibilities of physical medicine on a sound scientific basis and in close association with other wellequipped divisions of a large medical center serves to place the new project in a distinctive position.

operate in the work of the new Center.

vestigations, both clinical and experimental, as a scientific part of the practice of medicine, and to

train medical leaders and teachers in this branch of

medicine, and dependent upon this objective, to

According to Dr. Robin C. Buerki, dean of the Graduate School of Medicine at the University of Pennsylvania, arrangements are being made for the departments of anatomy, physiology, pathology, and other basic sciences at the University to co-

he declared.

train technical workers."

An alumnus of the College of Arts and Sciences and the School of Medicine of the University of Pennsylvania, Dr. Piersol joined the medical faculty at the University in 1907, and is now professor of medicine and a vice-dean in the Graduate School of Medicine, as well as professor of clinical medicine in the School of Medicine.

He is visiting physician to the Graduate Hospital of the University and chief of staff of that Hospital, active consultant in medicine to the Philadelphia

<sup>•</sup> Release from the Office of Civilian Defense.

General Hospital, medical director of the Bell Telephone Company of Pennsylvania, and former director of medical services of the Abington Memorial Hospital.

He is editor-in-chief of the Cyclopedia of Medicine, Surgery and the Specialties, editor of Clinics, and has contributed many articles to medical journals

and various textbooks.

In addition to being a past president of the American College of Physicians, he is secretarygeneral and a fellow of that organization. He is also a fellow of the College of Physicians of Philadelphia and of the American Medical Association, and a past president of the Philadelphia County Medical Society, the American Gastroenterological Association, and the American Clinical and Climatological Association.

During the first World War, Dr. Piersol was a lieutenant colonel and served for a time as commanding officer of Base Hospital 20, which was the University of Pennsylvania medical unit in that

war.

Later he became medical consultant to the Fourth Army of the A.E.F. He has been on the Medical Council of the Veterans Administration for many years.

#### Cumming Gets Social Hygiene Award

THE William Freeman Snow Award, a silver medal for "outstanding service in the field of social hygiene," was presented to Dr. Hugh S. Cumming, director of the Pan-American Sanitary Bureau and former Surgeon General of the United

States Public Health Service.

Maj. Gen. Merritte W. Ireland, former Surgeon General of the Army, bestowed the award at the

annual dinner meeting of the American Social Hygiene Association in the New York Academy of Medicine on February 2.

Dr. Cumming spoke on "Nations United for Health and Welfare in Peace and War." Dr. Ray Lyman Wilbur, president of the Association and chancellor of Leland Stanford University, discussed "The Future of Voluntary Agencies.

#### County News

Albany County

Dr. Walter J. Craig, director of the Division of Orthopaedics of the State Department of Health since July, 1927, has resigned to devote his time to private practice, Dr. Edward S. Godfrey, State Commissioner of Health, has announced. Before taking his state post Dr. Craig was assistant director of Johns Hopkins Hospital, Baltimore.\*

#### **Bronx County**

A regular meeting of the county society was held at Burnside Manor on February 16 at 8:30 P.M.

Two speakers took part in the scientific program. Iwo speakers took part in the scientific program. Dr. Israel S. Wechsler spoke on "Recent Advances in Neuropsychiatry." Col. William C. Porter, M.C., Director of Military Neuropsychiatry at Mason General Hospital, gave a talk entitled "Neuropsychiatric Lessons of World War II."

The county society Bulletin for February carries

the following announcement:

"There are vacancies on the Induction Board for orthopaedists, ophthalmologists, and neuropsychiatrists. Members interested in being placed on the available list are requested to communicate with the society's offices."

At the January meeting of the society resolutions on three subjects were adopted by the members. Those dealing with the Postwar Emergency Fund were published in the February 1 issue of this JOURNAL. The other two sets follow:

#### "WAGNER-MURRAY-DINGELL BILL

"WHEREAS: The Wagner-Murray-Dingell Bill (S. 1161), through its section on Medical Care and Hospitalization, offers to the peoples of the United States a system of medical practice government controlled, bureaucratic in nature,

\* Asterisk indicates that item is from a local newspaper.

and ruled by an appointee officer with dictatorial

powers; and

"WHEREAS: Passage of this bill would destroy the present time-tested free enterprise competitive system as now practiced in these United States;

Systems of medical practice "WHEREAS: analogous to the system offered in this bill have not proved more beneficial than our present system either to the populace at large or the medical profession; and

"WHEREAS: The morbidity and mortality rates of these United States compare favorably with any comparable country in the world; and

"WHEREAS: The standards of medical practice in these United States are recognized as the high-

est of any country in the world; and "WHEREAS: The above achievements have been attained through the medium of a free enterprise system of medical practice cooperating with governmental and nongovernmental agencies interested in the welfare of the people; and

"WHEREAS: The medical and hospital features of the proposed bill do not in essence add one iota to the existing high standards of our medical practice and cannot assure better health or life

to the populace; and "Whereas: The medical features of the proposed bill do eliminate the free choice of physician

and hospital; therefore be it "RESOLVED: That the Bronx County Medical Society records its disapproval of the medical and hospital sections of the Wagner-Murray-Dingell Bill (S. 1161); and be it further "RESOLVED: That the public be made ac-

quainted with this disapproval; and be it further "RESOLVED: That copies of this resolution be

sent to the members of Congress representing this County and State.'

#### E.M.I.C.

"WHEREAS: The Government of the United States has promulgated, through the Emergency Maternal and Infant Care program, aid for the

[Continued on page 532]

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[Continued from page 530]

wives and children of citizens serving in the armed forces of the country; and

"Whereas: The members of the Bronx County Medical Society are desirous of participating in the program to lessen the financial burdens of the beneficiaries of the program; and

"WHEREAS: The program contains a provision which in essence denies the right of free choice of physician and is dictatorial in nature, denying both the patient and physician the right to arrange by mutual agreement a contract for medical care; therefore be it

"RESOLVED: That the Bronx County Medical Society go on record as protesting against the present administration of the Emergency Maternal and Infant Care Program; and but further

ternal and Infant Care Program; and be it further "RESOLVED: That the Bronx County Medical Society recommend to the State Department of Health and the Children's Bureau of the United States Department of Labor that the present tripartite contract of the Emergency Maternal and Infant Care Program be discontinued and that the tripartite contract be replaced by a stipulated allowance benefit towards payment of medical services rendered."

Health Commissioner Ernest L. Stebbins of New York City has announced the appointment of Dr. Sophie Rabinoff as director of the Health Department activities in the Tremont Health Center and Bronx Borough office.

For the past five years district health officer at the East Harlem Health Center, Dr. Rabinoff is a graduate of the Women's Medical College of Pennsylvania. Her activities include membership in the New York County Medical Society, the American Medical Association, the American Public Health Association, the Women's City Club, and the International Society of Spanish-Speaking Women. Dr. Rabinoff also serves as editor of the Public Health Section of the Medical Women's Journal, and since 1938 she has been a member of the faculty of New York Medical College.\*

Capt. Chas. J. Gubitosi, (MC), USA, who was assigned to active duty in September, 1942, has been made Assistant Chief of the Surgical Service at Station Hospital, Camp Van Dorn, Mississippi.

#### Broome County

At the meeting of the county society in the auditorium of Binghamton City Hospital on February 8 Dr. Howard B. Slavin, assistant professor of medicine and bacteriology at the University of Rochester School of Medicine and Dentistry, gave a lecture entitled "Malaria."

This program was arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York, in cooperation with the New York State Department of Health.

#### Erie County

Dr. Albert J. Colton, of Buffalo, has been practicing medicine in that city for fifty-three years. On April 17 he will celebrate his eightieth birthday.

On April 17 he will celebrate his cignature.

Dr. Colton is known throughout the United States and Canada for his Colton System, which he invented thirty-nine years ago. It is a card index system designed for physicians, to simplify book-

keeping and recording of case histories. It enables a doctor to keep, on one small card, a record of the illnesses of an entire family.

In 1905 Dr. Colton wrote an article on his index system for the American Medical Association's Journal. Upon its publication, he was swamped with mail from physicians of every state in the Union and Canada, asking where they could buy the system. He had no choice but to offer it for sale, and, today, supplying his Colton System users takes nearly as much time as his practice.—Buffalo Courier-Express.

#### Jefferson County

Dr. Gustav J. Loewenstein has left Watertown to engage in the practice of his profession in Brighton. suburb of Rochester.

His branch office at Dexter will be taken over by Dr. Samuel Marritt, practicing physician of Sackets Harbor. Dr. Marritt, health officer of Sackets Harbor and Dexter and the town of Hounsfield, will continue to practice in Sackets Harbor as well as Dexter.

Dr. Loewenstein has practiced in Watertown since January, 1941, coming to Watertown from New York. He was graduated from Albertus University, Koenigsberg, Germany, with his degree of doctor of medicine in 1922. He came to the United States from Germany in 1939.

Besides practicing in this city, Dr. Loewenstein

has had an office in Dexter since June, 1941.

Dr. Marritt has been practicing in Sackets Harbor for five years, coming there from New York.\*

#### Kings County

Doctors should organize a union or "professional guild" and enter politics in order to "safeguard the professional and economic integrity," urged Dr. Leo Schwartz, newly installed president of the Kings County Medical Society, in an address in the Academy of Medicine.

"Professional people have always held themselves aloof from organized labor; in fact looked down on such group organizations. It is my strong conviction that in order to insure the continuance of a high type of medical science it is essential to have a strong and forceful organization," he said.

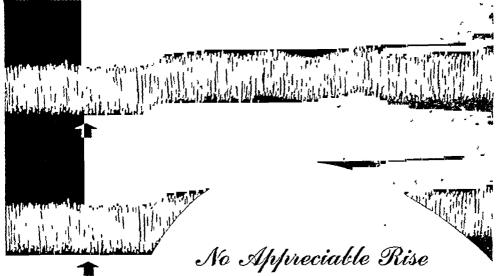
Dr. Schwartz denounced the proposed Wagner-Dingell social security bill which would provide more medical aid with government funds. He described it as a "political egg" and declared that "free medical advice and free clinics are foreign institutions. Americans do not desire assistance from charitable or government agencies, certainly not medical care."

Dr. Schwartz pointed to the doctor as being a scapegoat because he "fails to participate in the political life of the community." Because of this "lack of interest the politicians have little fear of or concern for doctors," he stated.—Brooklyn Citizen, January 19, 1944

Gifts totaling \$97,019 were received in the year which ended January 1, 1944, by the Long Island College of Medicine for eight research projects, staff expansion, scholarships, student loans, and a new department of psychiatry.

A six-year grant to the College from the Commonwealth Fund for the development of a new department of psychiatry was the outstanding contribution

[Continued on page 534]



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#### [Continued from page 532]

received during the year, it was stated in the report prepared by Gilbert H. Thirkield, Treasurer of the This grant was made under the Commonwealth Fund's program to strengthen the psychiatric phase of education in the medical schools of the country.

Contributions of \$2,433 toward an overseas fund for the 79th General Hospital, the all-Brooklyn unit now stationed in the European war theater, were received from members of the medical staff and trustees of five hospitals affiliated with the medical school and from the staff and trustees of the college.

An additional grant of \$5,000 for scholarships was received from the W. K. Kellogg Foundation, Battle Creek, Michigan, which made an initial grant of \$10,000 the year before in a nationwide program to provide loans or scholarships for medical students prior to the adopting of the Federal program to put all able-bodied men in professional schools on an enlisted basis until their training is completed.

The receipt of \$43,432 in the first appeal for wide community support by the Long Island College of Medicine was another important contribution made

to the College during the past year.

More than 1,100 contributors to this fund included trustees, alumni, business firms, executives, members of hospital boards, physicians other than alumni, parents of students, fraternal orders, labor unions, and the public at large. The Annual Development Fund appeal will be carried on each year as a means of expanding the College's service to the community and its program of teaching and research.

For the education of its four hundred and twentytwo students during the past year and to maintain its important research projects and plant facilities, the College required a total budget of \$410,000. After July 1 tuition fees of students in uniform were paid by the government under the advanced specialized training program. Approximately one-half the budget was financed by income from endowment and current gifts.

Two endowed scholarships amounting to approximately \$20,000 were established in 1943, the Stanley P. Jadwin and Peter Yudkowsky Memorial

Scholarships.

A new prize award was established through the gift of \$1,000 in memory of Robert R. Benedict, the income from which is to be awarded each year to the fourth-year student who offers the best paper on the causes and treatment of any form of psy-The Presbyterian Hospital made a contribution of \$500 for research on the circulation of blood through the optic nerve, and the Commonwealth Fund continued its three-year grant to provide visiting professors under a plan to test the feasibility of more interchange of personnel between medical colleges. The Rockefeller Foundation made a grant of \$500 for a series of lectures on prob-lems in the distribution of medical care and the Blatt Memorial Fund was established to endow the quarterly cumulative index in the College's library. The American Medical Association gave \$250 for research work in the department of pathology.

Several commercial medical firms made grants

for special studies.

#### Monroe County

Dr. Walter Symington Maclay, medical superintendent of Mill Hill Emergency Hospital, London, addressed the county society and the Rochester Academy of Medicine on January 20.

Dr. Maclay's talk was illustrated by films showing the importance of the early recognition and care of neuroses in both the armed forces and the civilian population. Mill Hill Emergency Hospital is a neurosis center. He is associated also with West London, King George, and Maudsley hospitals.

Dr. Maclay is visiting several cities on his tour of

Canada and the United States.\*

#### New York County

The American Society of Anesthetists announces the following officers, chosen at its annual election December 9, 1943: Drs. Emery A. Rovenstine, president; McKinnie L. Phelps, secretary; and Virginia Apgar, treasurer. Dr. Albert J. Erdmann, Jr., spoke briefly at this meeting.

Dr. Condict W. Cutler, Jr., an alumni trustee of Columbia University, has resigned to accept a commission as a lieutenant colonel in the Army Medical Corps, it is announced by Dr. Nicholas Murray Butler, president of the University. He served in the last war as a first lieutenant in the medical corps from 1917 to 1919.

A special alumni convention will be held at Low Memorial Library at Columbia on Tuesday, March 7, to select a successor to Dr. Cutler, whose term would have expired in 1945. He has been a trustee

since 1939.

Dr. Cutler, who has been director of surgery at Goldwater Memorial Hospital, Welfare Island, New York, was graduated from Columbia College in 1910 and from Columbia School of Medicine in 1912. He served his internship at Roosevelt Hospital and in 1915 and 1916 was intern and resident gynecologist at Sloane Hospital. He returned to Roosevelt Hospital in 1917 as a member of the staff, serving on the medical board and as associate surgeon since 1932.

He was instructor in surgery at Columbia School of Medicine from 1919 to 1929. He was president of the College Alumni Association in 1937-1938 and was a member of the standing committee in 1934-1935. He was a former director-at-large of the Columbia Alumni Federation from 1929 to 1931.

Dr. Cutler is a member of the American Medical Association and the New York Surgical Society and is an officer in the Military Order of Foreign Wars.

Each of the more than 400 podiatrists of Manhattan have purchased one or more Fourth War Loan Bonds, according to an announcement by William E. Cotter, Director of the Commerce and Industry Division of the War Finance Committee. Dr. Arthur J. Weisblatt was chairman of the podiatrists in the campaign.

Onondaga County

Dr. Byron Stookey, neurosurgeon of New York City, spoke at the Syracuse University College of Medicine on January 27. His talk, "Head In-juries," was sponsored by Nu Sigma Nu, medical fraternity.

A graduate of Harvard Medical College, Dr. Stookey studied in Geneva, Vienna, and Berlin.

[Continued on page 536]

ne case, observed for yourself, is more convincing than a hundred published case histories. Why not have your patients change to PHILIP MORRIS cigarettes, and watch the results! Your own observations will mean even more than the published studies, which showed that on changing to PHILIP Morris every case of irritation of the nose and throat due to smoking cleared completely or definitely improved.\*

Laryngoscope, Feb. 1935, Vol XLV, No. 2, 149-154

TO THE PHYSICIAN WHO SMOKES A PIPE: We suggest an unusually fine new blend-Country Doctor Pipe Mixture. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

#### [Continued from page 534]

He is neurologist and professor of neurosurgery at Columbia University, at New York Neurological Institute, and at New York Post-Graduate Medical School and Hospital.\*

Dr. Orren D. Chapman and Dr. Bertram Levinson left Syracuse on January 21 to make a study of tropical diseases in Costa Rica and Guatemala,

For Dr. Chapman, professor of bacteriology and parisitology in the College of Medicine, Syracuse University, and director of the Bureau of Laboratories, Syracuse Department of Health, the trip will be a continuation of an interest aroused during the last war, when he served as a second lieutenant in the sanitary corps, U.S. Army, and was stationed in Panama for fifteen months.

Dr. Levinson will pursue his interest in pathology which led him to Vienna in 1930-1931, where he studied in the medical school of the University of Vienna for fifteen months. He also attended the

Army Medical School in Washington.

The Central American trip will be made under grants from the John and Mary Markle Foundation of New York, through the Association of American Medical Colleges, for the extension of teaching

tropical medicine.

Working in coordination with the Committee on Inter-American Affairs and with the approval and support of the Surgeons General of the U.S. Army and Navy, the Syracuse doctors will observe clinical cases and pathologic material at San Juan de Dios Hospital in San José, Costa Rica. They will visit the leprosarium, serpentarium, and public institu-tions there, and then go to Quirigua, Guatemala, to make clinical and laboratory observations of cases They will conclude their trip with a week's observation of public health activities in Guatemala City. They will return to Syracuse in March.\*

#### Richmond County

Dr. Max Bernstein, of Manhattan, will succeed Dr. Michael Antell as senior health officer in charge of the Richmond Health Center and the borough office of the Health Department, according to an announcement by Dr. Margaret W. Barhard, assistant health commissioner in charge of health administration.

Dr. Bernstein formerly was district health officer of the Lower West Side Health Center in Man-

He is a graduate of the College of Physicians and Surgeons of Columbia University and also did postgraduate work in the University of Vienna in

He is a member of the New York County Medical Society, the Academy of Medicine, and the American Public Health Association.\*

#### St. Lawrence County

Dr. J. G. Fred Hiss, clinical professor of medicine at Syracuse University, was the guest speaker at the meeting of the county society held in Potsdam on January 20.

Dr. Hiss discussed "Rheumatic Fever and Rheumatic Heart Disease." The meeting opened

with a luncheon at the Potsdam Club.\*

The life of a physician and some of the early Canton doctors were discussed by Dr. Frank F.

Williams of Canton at the weekly meeting of the Canton Lions Club at the Harrington Hotel on

January 24.
Dr. Williams went to Canton to start his practice in 1884 and is now the oldest physician in both actual age and point of service. In addition to his regular practice, he is town health officer and county jail physician. Summing up his long experience, he stated that he has met almost every conceivable human situation, and declared "there is no profession in which you meet so many sad and solemn events or so many humorous ones."

Dr. Williams, who has outlived fourteen other Canton physicians, came to Canton to take over the practice of Dr. L. T. Botsford, who practiced in several northern New York communities....

The speaker recalled that when he came to Canton in 1884 there were eight practicing physicians. They were Dr. Alvin Ames, Dr. J. C. Preston, Dr. Eugene Bragdon, Dr. Patrick Shea, Dr. Alfred Drury, Dr. John Bassett, and Dr. George Russell. Dr. Williams stated that physicians' fees were

very low at the turn of the century and many of the doctors were very poor. Dr. Shea charged as little as 25 cents for an office call and 50 cents for a house call. The speaker told of an occasion when Dr. Russell charged \$2 for a call in the country and paid \$2.50 livery rent for a horse to go with his own horse over the bad roads.—Syracuse Herald, Jan. 26

#### Warren County

Dr. William A. Rose, physician and surgeon, of Boston, has opened an office for general practice in Glens Falls. Dr. Rose went to Glens Falls from Haiti, where up until December, 1943, he was associated with a government rubber development project in the Department of Industrial and Tropical Medicines.\*

#### Westchester County

Biology and science teachers of Westchester County high schools are participating in a pioneer venture of the county's Cancer Committee to bring cancer education into the high school curriculum.

In a series of lectures under the auspices of the Committee, Dr. C. R. Halter, assistant biologist at Memorial Hospital, New York City, is presenting to these teachers the modern knowledge concerning cancer. They, in turn, are expected to evaluate this material critically from the point of view of suitability for incorporation into science courses.

The lectures are being held once a month at the Hotel Commodore, New York City, four having already been given—November 6, December 11, January 8, and February 5. The next two will be delivered March 4 and April 1. It is planned to continue the series even a period of three years. continue the series over a period of three years.

Dr. Halter's first lecture was devoted to an outline of the natural history of cancer, immediate and accessory causes, early recognition, and the cura-

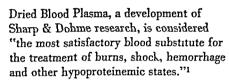
bility of early cancer.

In his second lecture, he compared the characteristics of malignant and benign tumors and the causes of cancer. With respect to predisposing internal factors, he said that little is known about normal cells, the manner of their growth and division, growth-stimulating and restraining factors, and the influence of aging. Presenting the more control heard of the control of their growth and division, growth and growth an crete knowledge concerning various external causes,

[Continued on page 538]

from Stable, Dried Plasma...to Concentrated Plasma...

# to Normal Human Plasma



Desiccated from the frozen state under high vacuum and sealed under vacuum, 'Lyovac' Normal Human Plasma may be kept indefinitely without refrigeration and is quickly restored by addition of the sterile, pyrogen-free distilled water provided with each unit. Hypertonic (concentrated) solutions are easily prepared.

Moreover, 'Lyovac' Normal Human Plasma is composed of pooled material and may therefore be given without delay for typing or cross-matching. Each 250-cc. unit contains approximately as much osmotically active protein as 500 cc. of whole blood. This stable, portable preparation may be obtained at drug stores and hospitals throughout the United States, Canada and Latin America...

Sharp & Dohme, Philadelphia 1, Pa.

1. Military Surgeon, 90:306, 1942.

'LYOVAC' normal human PI



[Continued from page 536]

Dr. Halter discussed bacteria, viruses, certain lesions of the mouth due to vitamin deficiencies, irritants, heat, worm larvae, and carcinogenic

Summaries of these lectures are being prepared as they are delivered. They may be obtained by applying to Mrs. Margaret T. Norton, executive secretary, Westchester Cancer Committee, 89 Pondfield Road, Bronxville, New York.

#### Deaths of New York State Physicians

Name Edmond E. Blaauw Nathan S. Brody Mark N. Brooks Morris W. Cowden Arthur E. Falkenbury Joseph A. Hartman Peter L. Harvie A. Whitfield Hawkes Louis Landman Max Lubman Henry J. Noerling John Nugent George W. Puerner George A. Retel William W. Samuelsen Louis S. Smith	Age 76 43 82 82 78 46 58 37 53 67 55 85 62 75 31 47	Medical School Amsterdam Univ. & Bell. Buffalo Buffalo Albany Buffalo Harvard P. & S., N.Y. N.Y. Hom. Cornell Albany Michigan Buffalo Buffalo L.I.C. Med. L.I.C. Hosp.	Date of Death December 4 January 30 December 23 January 24 January 23 December 17 February 4 December 17 February 7 November 20 February 4 January 18 January 16 January 21 December 19 October 23	Residence Buffalo Brooklyn Springville Gerry Whitehall Buffalo Troy Manhattan Manhattan Manhattan Southampton Buffalo Buffalo Brooklyn Brooklyn
William W. Samuelsen Louis S. Smith Cyril Sumner Giles W. Thomas				

#### A UNION FOR DOCTORS

No other remark is quite so infuriating to the unionist of a Red tint as a reference to the medieval

The mere mention of those organizations—which operated to the mutual benefit and satisfaction of master, worker, and apprentice—is anathema to the present-day radical, the first tenet of whose creed is incompatibility between classes and groups.

It is therefore interesting to note that Dr. Leo S. Schwartz, newly elected president of the Kings County Medical Society and the Academy of Medicine of Brooklyn, chose the unpopular word "guild" as the suggested designation for a professional combination for protection against politicians and "social coddlers."

To be sure, Dr. Schwartz went even further and urged his fellow doctors not to overlook the possibility of the "much-hated union" for a defense of their economic and professional rights. The important point, however, is that his first choice of a name was "guild," obviously as more befitting the

dignity and character of medical practice.

It is the "social coddlers," with their intolerant liberalism, who would object most strongly to any return to the virtues and traditions of the Middle

Ages, solely on the grounds that any vestige of the past is worthless per se. They are the blind admirers of progress for its own sake, with intellects incapable of grasping G. K. Chesterton's comment, "It is just as bad to feel superior to a man in the thirteenth century as to one in the Old Kent road."

Nevertheless, these "social coddlers" are determined to create a modern man out of all semblance to humanity in the thirteenth, twentieth or any other century. As Dr. Schwartz said, they have devised the "catch-phrase" of "adequate medical care" to persuade the unwary that the hope of public health lies in the political regimentation of physicians and surgeons.

The medical profession would be shortsighted indeed if it were to accept this fate without protest or opposition. It would do well to heed Dr. Schwartz "strong conviction that in order to insure the continuance of a high type of medical science and practices against political manipulations, it is essential to have a strong and forceful organization." Political panaceas and radical verbiage are poor substitutes for the healing art in a critical illness or major operation.—Editorial in the Brooklyn Citizen, January 20, 1944

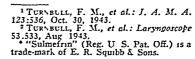


IT is well recognized that acute symptoms of the common cold usually expend themselves within two or three days. Then pneumococci, hemolytic streptococci, staphylococci or other micro-organisms invade the respiratory passages and prolong and aggravate the illness.

This is the time when the cold is most vulnerable to chemotherapeutic attack because these organisms are sensitive to Sulfathiazole. This is the time Sulmefrin\* is useful. Sulmefrin contains desoxyephedronium sulfathiazole which combines the antibacterial properties of sulfathiazole with the proved vasoconstrictive action of ephedrine compounds.

Clinical studies<sup>1,2</sup> have shown that Sulmefrin facilitates drainage and ventilation, producing prompt and prolonged vasoconstriction without such side-effects as sneezing, tachycardia or nervousness. It may be used as a spray, as drops or by tamponage.

Supplied in 1-ounce dropper bottles and in 1-pint bottles.



Literature on sequest.



# E-R:SQUIBB & SONS

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# Hospital News

### Associated Hospital Service Honors Dr. Paul Keller

R. PAUL KELLER, vice-president and medical York, died on December 22, 1943, of a heart at-

tack, at the age of fifty-two years.

Dr. Keller was one of the pioneers in the esta-blishment of Blue Cross Hospital Service Plans in the United States. In April, 1939, he was appointed medical director of the New York Plan and during his period of service there was a progressive increase in the scope of hospital care in Greater Through his efforts, the Plan and its two hundred and sixty-four member hospitals were brought closer together in their mutual objective of serving the public.

Mr. Louis H. Pink, president of Associated Hospital Service, upon hearing of the death of Dr. Keller, stated: "The nonprofit hospital service plans of America have lost one of their most progressive leaders. Dr. Keller was a man of ideas. He constantly strove to place better hospital care within the reach of all in the community. His efforts toward the improvement of hospital and medical service in New York, and throughout the nation, will serve as a lasting memorial to his de-

voted service."

Dr. Keller was instrumental in organizing the Hospital Service Plan of New Jersey. He was a recognized authority in the field of hospital administration and was a frequent contributor to hospital and medical journals. Among his publications were: "A Forward Step in Medical Care" and "Social Responsibilities of the Physician and Hospital."

Dr. Keller was born in Philadelphia on November 2, 1891. He prepared himself for the Presbyterian

ministry, but his interest later turned to medicine. He graduated from Jefferson Medical College in June, 1917. During the first World War he served in the Navy as Senior Medical Officer and was honorably cited for his service; after the war he served in the Navy in the Danish West Indies and in Mexico, where he studied tropical medicine. He came to Newark in February, 1921, as Executive Director of Newark Beth Israel Hospital, and was active in the campaign which resulted in the opening in 1928 of its new \$4,000,000 hospital building. He left Beth Israel in 1934 to head a group specializing in industrial medicine and to carry on private practice.

Dr. Keller was the New Jersey representative among twenty-five American doctors selected by the New York Academy of Medicine in 1930 to study health resorts in France as guests of the French Government. He advocated sharing by municipalities and county governments of the care of the indigent in private hospitals to ease the burden on

paying patients.
Dr. Keller served on the Emergency Relief Administration of New Jersey Administrative Council in 1934 and that year was named medical director of the Bankers Indemnity Company of New Jersey. In 1935 he was named to the unsalaried post of director of the Newark Bureau of Industrial Hy-When the Association of Industrial Physicians and Surgeons of New Jersey was organized in 1938 he was chosen acting secretary. He had served as staff surgeon for the Pennsylvania Railroad and member of the Executive Committee of the University of Newark and was former president of the State Hospital Association.

#### The Care of Communicable Diseases in General Hospitals

T a recent conference of hospital administrators and local health officers in an upstate county at which the question of the hospitalization of acute communicable diseases in general hospitals was discussed, it was recommended that the atti-tude of the State Department of Health in this matter be presented in *Health News* for the benefit of health officers, attending physicians, and others.

In the early part of this century there was a tendency on the part of municipalities to build special hospitals for the isolation of communicable diseases. These so-called "pest houses" were designed particularly for the care of smallpox cases but were intended for the isolation of other acute infectious diseases as well. At that time, it was thought feasible to control communicable diseases in communities through isolation of recognized cases, since it was felt that if all patients were isolated until they were no longer infectious, the spread of these diseases would cease. However, upon further investigation from a bacteriologic standpoint, it was learned that in many communicable diseases, symptomless carriers and atypical cases which ordinarily would not be recognized as infectious are frequently more important in the spread of the disease in the community than the typical cases which can be detected. The routine hospitalization of acute communicable diseases for the sole purpose of limiting spread of the infection in the community,

therefore, obviously would not accomplish this

At present, hospitalization of contagious diseases ordinarily is recommended only in those cases requiring care from the standpoint of the welfare of the patient himself and which can be given only in a hospital and not at home. In rare circumstances, it may still be necessary to hospitalize patients from the standpoint of the protection of the community as, for example, in the case of a communicable disease discovered in a transient or occurring in a home in which for certain reasons proper isolation

is impossible. Concomitant with the development of our bacteriologic knowledge of communicable diseases, technics have been devised to permit the safe isolatechnics. tion of cases of communicable diseases in general hospitals. These procedures vary with the disease; some patients can be cared for without danger on a ward; others must be confined to a private room. However, there is essentially no communicable disease which cannot be cared for safely in a private room on a floor on which there are other patients with noncommunicable diseases, providing certain technics are practiced rigidly by the attendants. It has become increasingly clear that the training and skill of the attendants are much more important

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[Continued from page 540]

in controlling the spread of infection than the physi-

cal equipment provided.

In the opinion of the New York State Department of Health, therefore, separate buildings for the sole care of communicable diseases are not essential. larger municipalities it may be more convenient for a hospital to have a separate building for this purpose, but this is a matter of convenience and not In smaller places in which such a building would be vacant a large part of the time, an unnecessary expense to the community would be entailed.

Every hospital is dealing with communicable diseases whether or not it recognizes that fact. Because of the prevalence of carriers and atypical

cases among the general population, it is inevitable that such carriers and cases will be admitted from time to time to a hospital even though the infection is not detected at the time of admission. The routine procedures followed in these hospitals, therefore, with regard to the hygienic practices of the attendants, the handling of food and dishes, and the use of various types of equipment (such as thermometers, enema apparatus, etc.) should be such that there is no likelihood of the transfer of secretions or excretions from one patient to another. If such technics are not followed, sooner or later an outbreak is bound to occur through the introduction of pathogenic micro-organisms by a carrier or atypical case.—James E. Perkins, M.D., in Health News

#### Hospital Fund Drive Exceeds Goal

SEVEN new trustees were elected to the board of the United Hospital Fund of New York on February 1 at the sixty-fifth annual meeting at headquarters, 370 Lexington Avenue. Present officers and trustees were re-elected and progress reports were made by the president, Roy E. Larsen, the treasurer, Edwin P. Maynard, and the vicepresident and chairman of women's committees. Mrs. Frank E. Adair. Edgar H. Boles, president of the General Reinsurance Corporation, and recently elected president of New York Post-Graduate Medical School and Hospital; Henry C. Brunie, president of the Empire Trust Company; Everett M. Clark, assistant secretary, Brooklyn Trust Company, president of the Brooklyn Club, and Brooklyn chairman of the United Hospital Campaign for the last three years; Charles P. Cooper, vice-president of the American Telephone and Telegraph Company and president of the Presby-terian Hospital; Edward J. Noble, president of the board of trustees, St. Lawrence University, president of the Blue Network, and chairman of the Life Savers Corporation; Edwin A. Salmon, chair-

man of the City Planning Commission, chairman of the Hospital Council of Greater New York, and a trustee of Memorial Hospital; and Mrs. Curry Watson, vice-chairman of Women's Committees and chairman of Medical Social Service, United Hospital Fund, are the new trustees,

Mr. Larsen reported that the sixty-fifth annual appeal, just closed, was most successful. "We not only attained our objective, \$1,457,120.01," said Mr. Larsen, "but we are \$85,577.57 beyond our

goal, with \$1,542,697.58 raised to date.

Mr. Larsen paid tribute to the campaign leaders and workers who collected this money and expressed appreciation to the thousands who contributed to the needs of the hospitals. "The response to our appeal was most gratifying," he said, "but more important, I think, was the indication of a growing appreciation of our seventy-five voluntary member hospitals and a desire to guarantee continuance of their community services."

Mr. Larsen announced that William H. Zinnser,

1943 campaign chairman, has agreed to head the

1944 appeal next fall.

#### Kellogg Foundation Votes Grant for Postwar Study

THE Board of Trustees of the Kellogg Foundation has voted a grant of \$35,000 for study by the Postwar Planning Committee of the American Hospital Association of the postwar hospitalization needs of America. The worth of this project had already been recognized by a grant of the same amount from the Commonwealth Fund, contingent upon securing the rest of the \$100,000 two-year budget from other sources. The Board of Trustees budget from other sources.
of the American Hospital Association has voted \$15,000 this period.

The research of this two-year program will seek to determine the adequacy of distribution of present hospital facilities and the best method of insuring adequate hospital care for all citizens. Recom-mendations for postwar hospital needs must be

considered in the light of racial and climatic differences, relative standards of living, and other varying factors which need analysis.

At the earliest possible date the study commission will be formed and the program will be initiated. The present heavy utilization of hospitals has led many of the boards of trustees of hospitals to plan an extension of hospital services in the immediate postwar period, and legislation directed to establish the method of payment for hospital service on a compulsory basis has been introduced in Congress. This general interest in the functions and facilities of hospitals indicates the necessity of a comprehensive study which will make available expert consultation and statistics related to the individual hospital, the community, and the nation.

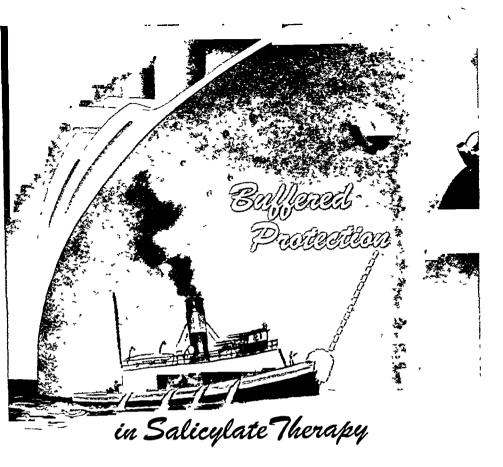
#### New Nurse Recruitment Officer Joins American Hospital Association

ON FEBRUARY 1 Miss Mildred Riese, super-intendent of Orthopaedic Hospital, Los An-geles, joined the staff of the American Hospital Association as Nurse Recruitment Officer, to coordinate the Association's activities under a contract with the United States Public Health Service for the program of the United States Cadet Nurse Corps. The National Nursing Council for War Service has the major responsibility for the re-

cruiting program, but the Nurse Recruitment Officer of the American Hospital Association will work with those portions of the program affecting hospitals and the hospital administrators.

The American Hospital Association is particularly concerned with the position of the hospitals as information centers for applicants interested in entering a school of nursing, and will continue its

[Continued on page 544]



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CINCINNATI, U.S.A.

[Continued from page 542]

efforts to encourage hospitals to increase their

training capacity.

Utilization to the fullest possible extent of the hospitals' established and increasing facilities for nurse training and the promotion of the program through Association members and the public will be carried forward under the general approval and direction of the United States Public Health Service and in cooperation with the National Nursing Council for War Service.

Prior to becoming superintendent of Orthopaedic Hospital in 1924, Miss Riese was superintendent of the North Carolina Hospital at Gastonia. A

graduate of the Waltham, Massachusetts, Training School for Nurses, she holds a B.S. degree from Teachers College, Columbia University, with a major in hospital administration.

Miss Riese is a fellow of the American College of Hospital Administrators, a member of the Association of Western Hospitals, a former trustee and chairman of the Council on Professional Practice of the Association of California Hospitals, and has held various offices with the Hospital Council of Southern California.

She has been a member of the American Nurses' Association since 1919, and a member of the American Hospital Association since 1931.

### Improvements

A Federal Works Agency project for expansion of nurse training facilities at Syracuse University at an estimated cost of \$161,400 has been approved by President Roosevelt, according to a telegram received by former Senator Francis L. McElroy from Senator James M. Mead in Washington.

The project, to be financed through Lanham Act funds, provides for the acquisition, conversion, equipping, and furnishing of a four-story and basement apartment building for a nurses' school and

dormitory.

The Syracuse University School of Nursing, which opened June 28, using the combined facilities of University and Memorial hospitals, has been approved for participation in the nurses' training program under the Bolton Act.

The present total enrollment of the school is 270

students.\*

A storage building consisting of basement and one floor will be constructed at St. Peter's Hospital in Albany, at a cost of \$7,000, according to a permit issued by Albany Building Department.

The 33 by 80 feet brick structure will be adjacent to the corridor connecting the hospital and the nurses home. The permit was issued on govern-

ment priority sanction.\*

The following is a quotation from the Batavia News of December 15, 1943:

"Plans had been made for a formal opening when the new maternity annex at the Batavia Hospital was furnished, but the stork, a very busy bird these days, upset the plans by bringing more babies than the already overtaxed mater-nity ward could accommodate, and so, without ceremony, three happy mothers became the first members of the "club"

"The annex has been completely remodeled and renovated and each room painted a soft pastel shade, with harmonising curtains and furnishings. It is connected with the maternity ward by a short enclosed runway, a continuation of the pres-ent Maternity Hall, in full view of the nurses' central call station.

station.

"The building was opened in January, 1908, the gift of Mrs. Adelaide Richmond Thomas in memory of her father, W. Eugene Richmond...."\*

The Mount Vernon Hospital has just completed installation of new x-ray treatment equipment in its x-ray department, it was announced by Arthur B.

Solon, superintendent.

The equipment is the latest in model and design and will be used in the treatment of cancer, nonmalignant tumors, blood and glandular diseases, a large variety of infections, and a wide range of skin conditions. This equipment makes possible the use of x-ray in treating these diseases, by utilizing a high voltage which produces a constant flow of x-rays which are directed into the body area under treatment.

Installed at a cost of \$7,500, the new equipment replaces x-ray treatment equipment installed in 1931. Necessary priority for its purchase and installation was allowed by the War Production Board because the Mount Vernon Hospital is the control institution in the companion that the production of the companion of the compan only institution in the community providing this type of service to those who need it. The new equipment will be a memorial to the late Dr. Archibald V. Campbell, and funds left to the hospital by Dr. Campbell's wife for this purpose were used for its purchase.\*

A public address system and combination record player and recorder have been presented to Rhoads General Hospital in Utica by employees of the Oneida Knitting Mills.\*

#### At the Helm

The names of seven Brooklyn and Long Island residents have been sent to the Senate by Governor Dewey for confirmation of their appointments as members of the boards of visitors of state institutions. Nearly all have been serving under interim appointments which the Governor made last year while the Legislature was not in session.

Included in the list are Albert Hutton of Brooklyn for member of the Board of Visitors of the Pilgrim State Hospital, Jacob Goetz of Brooklyn for member of the Board of Visitors of the Brookyn State Hospital, The Rev. Hugh M. Graham of Brentwood, Mrs. Merry Parkes of Port Washington, and William H. Clayton of Kings Park for the Board of Visitors of the Kings Park State Hospital, and Mrs. Dwight Hoover of Hempstead for the Board of Visitors of the Rockland State Hospital.

The only noninterim appointment was that of Mrs. Webster F. Williams of Hollis, for the Board of Visitors of the Creedmoor State Hospital. She succeeds Mrs. Edna V. Newbranch, whose term had

expired.

The Governor also submitted the name of Robert Higbie, Jr. of Jamaica, for member of the Interstate Sanitation Commission.\*

[Continued on page 546]

\* Asterisk indicates that item is from a local newspaper.

# The ABC of Vitamin D Therapy



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Two drops of Drisdol in Propylene Glycol in the daily ration of milk is the prophylactic dose.



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Brand of Crystalline Vitamin D
from ergostero!



[Continued from page 544]

High tribute for the work of the Volunteer Nurses' Aides and the Girl Scouts during the past year was expressed in reports presented at the annual meeting of the Geneva General Hospital Corporation, which was held preceding a meeting of the Board of Trustees on January 12.

D. C. Hutchins was elected president of the board of trustees at the meeting of the board.

Other officers elected were: vice-president, Foster P. Boswell; secretary, Mrs. Ronald M. Harman; assistant secretary, Lansing S. Hoskins: treasurer, Vernon Alexander; assistant treasurer, William P. O'Malley.

Dr. Gustav Selbach, director of the Ontario County Laboratory, reported that 12,889 examinations of various kinds had been made for the Geneva General Hospital during the year 1943, and that several new pieces of equipment have been pur-chased for the laboratory at the local hospital.

Also announced by Dr. Selbach was the appointment of Eugene A. Norod as medical technologist

at the Geneva General Hospital.

William M. Fink, retiring president, expressed appreciation to all of the board members, and a vote of thanks was extended to Mr. Fink by the board members,\*

A. Palmer Brooks has been elected to the board of managers of Mount Vernon Hospital to fill the unexpired term of Richard M. Winfield, who resigned last November after serving on the board for thirty-six years. Vice-president of the board when he resigned, Mr. Winfield is now an honorary member.\*

D. Frank L. DeFurio, Auburn physician and former coroner, was elected president of the medical staff of Mercy Hospital at their annual meeting. He succeeds Dr. Bernard L. Cullen. Dr. L. D. Burlington, of Aurora, was elected vice-president, and Dr. Anthony L. Spadaro was re-elected secretary and treasurer.\*

Dr. Joseph Cornell, gynecologist at Ellis Hospital, Schenectady, has been elected to the medical board of that institution. He succeeds Dr. William Mallia.\*

Two appointments were made at a recent meeting of the directors of the Tarrytown, Hospital. Dr. P. F. McElroy, of New Canaan, Connecticut, was designated as pathologist and has taken over the laboratory work which the late Dr. H. O. von Wedel performed for many years.

Dr. McElroy formerly was associated with the

hospital, as well as with Dr. von Wedel.

The other new appointment is that of Dr. Frederick M. Breitbarth, physician at the Manumit

School, Pawling, as house doctor.\*

Dr. John E. Groff, of Rome, has been appointed a member of the board of managers of the Rome and Memorial Hospital by Mayor Walter W. Abbott. He succeeds Mrs. Arthur T. Whyte, whose term

has expired. The appointment is for five years. Dr. Groff is a native of Rome and has been a practicing physician there for thirty-six years.

He was president of the board when the Rome Hospital and Murphy Memorial Hospital were merged into one organization. He was formerly a member of the board of managers.\*

Dr. S. Eugene Barrera is the new psychiatrist-inchief and neurologist at Albany Hospital and professor of neurology and psychiatry at Albany Medical College.

Dr. Barrera went to Albany Hospital from the New York Psychiatric Institute, where he was principal research psychiatrist. He is a graduate of Columbia College, Columbia University, and the College of Physicians and Surgeons.

Dr. Barrera succeeds Dr. D. Ewen Cameron.\*

Dr. Donal Sheehan, acting dean of the New York University College of Medicine, has announced the appointment of Dr. Howard C. Taylor as chairman of the department of obstetrics and gynecology. Dr. Taylor has been a member of the faculty of the New York University College of Medicine since 1935. He is associate visiting obstetrician and gynecologist at Bellevue Hospital, attending surgeon at Memorial Hospital, and attending gynecologist at Roosevelt Hospital.

E. Elwin Glover, assistant to Dr. Fraser D. Mooney, superintendent of the Buffalo General Hospital, has been named superintendent of Brooks Memorial Hospital in Dunkirk.

Mr. Glover has been on the staff of the Buffalo institution since 1927 and was trained for hospital

administration at the University of Chicago.

He succeeds Dr. Ina B. Hall, whose resignation became effective on December 1. Dr. Hall, whose home is in Richmond, Virginia, came to the hospital as superintendent in May, 1943.\*

Dr. David C. Thurber, of Sherrill, has been appointed resident physician at Elliot Hospital, Manchester, New Hampshire.

He recently completed his internship in Roch-

ester General Hospital.

Dr. Thurber is a graduate of the Medical School of the University of Rochester, where he was commissioned a second lieutenant in the Army Medical Corps. He recently was given his honorable discharge from active service.\*

Southside Hospital in Bay Shore has announced the appointment of H. F. Rudiger, Jr., as director

of the hospital.

Mr. Rudiger was assistant superintendent of Newark Beth Israel Hospital for six and a half years. He then joined the Long Island College Hospital of Brooklyn, serving in a similar capacity for two and and a half years, terminating his connection there to assume his new duties as director of Southside Hospital.\*

Ferdinand Eberstadt is the chairman of the 1944 maintenance fund campaign which began in Janu-[Continued on page 548]



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A Shield of Protection—Buffer alkali mechanisms protect the analgesic, sodium acetylsalicylate, from hydrolysis in the stomach. Tendency to gastric upset is reduced.

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Professional sample and literature upon request. Dept. N. Y. 3

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[Continued from page 546]

ary to raise \$160,000 for Beekman Hospital in New York City, which furnishes hospital facilities to an area covering nearly 300 city blocks in lower New York, south of Canal Street.

The hospital's directorate is composed of a group of business men who have for years been actively concerned with furnishing health protection to that part of the city. Howard S. Cullman is president.

Beekman has served the downtown community

almost forty years, \*

Harrison B. Wright has been re-elected president of the South Nassau Communities Hospital. W. Sargeant Nixon was returned as vice-president from Freeport, with Jacob Lampert as treasurer and James G. Joslin as secretary. Mr. Nixon and Charles J. Martin were re-elected to the board of directors.\*

Mrs. Helen Ross, superintendent of the Tompkins County Memorial Hospital in Ithaca, has been reappointed to serve in that office for another two

Five new trustees were elected at the annual meeting. They were Mrs. Anna G. Whitcomb, Mrs. Marion Hulse, V. A. Fogg, Harry Gordon, and Harold Wilcox. Retiring trustees were Walker N. Brand, Miss Katherine Harris, and James P. McNamara.\*

Prof. Thomas M. Hills of Vassar College, was re-elected president of the board of trustees of Vassar Brothers Hospital at the annual meeting of

All other officers also were re-elected, as follows: Halsey P. Wyckoff, vice-president, Baltus B. Van Kleeck, treasurer; William B. Sheldon, assistant treasurer; Mrs. Alexander G. Cummins, secretary; and Mrs. Eleanor Terpenning, assistant secretary.

Seven trustees, nominated by the Vassar Brothers Hospital Association, were named to the board, five being re-elected and the other two being newly

Re-elected were Erik Aldeborgh, Mrs. Cummins, Professor Hills, Mr. Van Kleeck, and Mr. Wyckoff. Newly elected trustees are Mrs. Harry H. Hill, of Rhinebeck, and J. Ernest Doolittle.\*

Dr. S. M. Rabson, who received a medical discharge from the Navy last spring after two years on active duty, has resigned as assistant professor of pathology at New York Post-Graduate Medical School, Columbia University, to accept the post of laboratory director at the new Franklin D. Roosevelt Hospital, Bremerton, Wash.

Dr. Charles W. Woodall was elected chairman of the medical and surgical staff of Ellis Hospital in Schenectady at the annual meeting of the hospital staff. He succeeds Dr. G. Marcellus Clowe.

Dr. Arthur H. Congdon was named vice-chairman of the staff and Dr. Charles Rourke was reelected secretary.\*

Edgar H. Boles has been elected president of the New York Post-Graduate Medical School and Hospital, succeeding Dr. Arthur F. Chace.

Dr. Chace, president of the New York Academy of Medicine, served as president of the medical school and hospital for for teen years.

A member of the board since 1922, Mr. Boles, as chairman of the committee on new buildings, has played a large part in developing a postwar building program soon to be announced. Charles S. Mc-Veigh, a member of the firm of Morris & McVeigh, who has been a member of the board since 1932, was elected a vice-president.

The plan to enlarge the medical school and hospital and to expand its facilities, Mr. Boles explained, is designed to meet an "unprecedented demand" for postgraduate training expected after

the war.

Beth Israel Hospital in New York City has appointed Drs. Louis Wender, Joseph Epstein, Morris D. Epstein, David Beres, David Schryver, Samuel J. Obers, R. J. Almansi, G. Trefousse, and I. Malbin to the staff of its Evening Mental Health Clinic.

Dr. George Baehr took part in the first regional institute for hospital administrators, which was held in Mexico City, January 16-29, under the auspices of the Pan-American Sanitation Bureau and the Inter-American Association of Hospitals.

Dr. Leverett D. Bristol, executive director of the Hospital Council of Greater New York, has been appointed chairman of the Health Advisory Council of the Chamber of Commerce of the United States.

The personnel of the medical staff of the Nathan Littauer Hospital in Gloversville, headed by Dr. M. F. Donnelly, has been announced for 1944. The names of fourteen members of the staff who are serving with the armed forces are included in the list.

Dr. A. F. Goodwin, who entered service early, and Dr. John Shannon, have returned, after receiving honorable medical discharges.

Two new members, assigned to the courtesy staff, are Dr. Emanuel Eckstein and Dr. Fritz Popper. Dr. Popper is located at Fultonville.

Popper. Dr. Popper is located at Fultonville.

The active members of the staff at the present time are: attending surgeons—Dr. George Lenz, Dr. B. G. McKillip, Dr. E. G. Gillmore, Dr. Claude Bledsoe, Dr. L. H. Backus, Dr. M. F. Donnelly, Dr. F. G. Calder, Dr. H. B. Riggs, Dr. S. J. Colton, Dr. F. S. Hyland, and Dr. B. A. Winne; assistant attending surgeons—Dr. A. J. D'Errico, Dr. Robert Lenz, Dr. Louis Tremante, Dr. W. F. Hesek, Dr. Samuel Russell; attendants in medicine—Dr. R. L. Ellithorpe, Dr. H. H. Oaksford, Dr. A. H. Sarno, Dr. Woodard Shaw, Dr. S. C. Clemans, Dr. R. S. Kunkel, Dr. Morris Kennedy, Dr. E. N. Perkins; assistant attendants in medicine—Dr. A. F. Goodwin, hematologist; Dr. W. R. Grunewald, Dr. Dominic Battaglia, Dr. Malcolm McMartin, Dr. K. Durand, Dr. H. W. Beaty, Dr. J. J. Thompson, Dr. B. E. Chapman; attending obstetricians—Dr. A. R. attending obstetricians-Dr. A. R. Chapman;

[Continued on page 550]



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[Continued from page 548]

Wilsey, Dr. H. C. Hageman, Dr. Kurt Kaiser; anesthetists—Dr. E. N. Perkins, Dr. A. J. D'Errico; anesthetists—Dr. E. N. Perkins, Dr. A. J. D'Errico; assistant anesthetist—Dr. Dominic Battaglia; attendant in ear, nose, and throat—Dr. R. T. Furlong, Dr. John Clemans, Dr. F. M. Crump, Dr. J. F. Sarno, D.O.L.; surgical orthopedics-pediatrics—Dr. B. G. McKillip, F.A.C.S.; attending urologist—Dr. W. J. Kennedy, F.A.C.S.; radiologist-radium treatment—Dr. E. G. Gillmore, F.A.C.S.; attending roentgenologist—Dr. H. C. Denham, D.A.B.R.; attending cardiologist—Dr. H. H. Oaksford; attending dermatologist—Dr. V. R. Ehle.

The courtesv staff includes Drs. Morris Alpert,

The courtesy staff includes Drs. Morris Alpert, M. E. Brickner, A. D. Dennison, Emanuel Eckstein, R. P. Fiero, V. L. Getman, William C. Karl, John Larrabee, P. E. Loewenstein, C. McDowell, R. M. Palmer, Hans Pollak, Fritz Popper, Charles Rosen, Samuel Schoenberg, John Shannon, R. H. Tyner, J. B. VanUrk, J. D. Vedder, and G. V. Wilson.\*

The re-election of Charles S. Andrews as president of Tuckahoc's Lawrence Hospital has been announced.

Other officers re-elected for 1944 were: Thomas B. Gilchrist, vice-president, J. Robertson MacColl, Jr., secretary, and Frankland F. Stafford, treasurer.

James A. Lyles was elected as a new member of the board, succeeding the late Edgar V. O'Daniel, who was a member from the year 1932 until the time of his death.

Other members of the board of governors for 1944 are: Chas. S. Andrews, Robert L. Barrows Mrs. Pressley Bisland, William Callen, Mrs. Harold Flammer, Clarence Francis, Thomas B. Gilchirst, Alexander Hadden, Dudley B. Lawrence, J. Robert-son MacColl, Jr., Lewis V. Mays, Joseph V. Mit-

**Newsy Notes** 

The Mount Sinai Hospital honored 90-year-old Dr. Alfred Meyer, oldest living graduate of its House Staff and one of the foremost leaders in the conquest of tuberculosis, at a ceremony in Blumen-

thal Auditorium on January 27.

Dr. Meyer, whose association with Mount Sinai dates back to 1877, was presented with a testimonial volume as a tribute to his distinguished career in medicine and civic leadership. The presentation volume, a special issue of the Journal of the Mount Sinai Hospital, contains some thirty-five articles, most of them scientific reports, contributed by Dr. Meyer's professional associates.

Speakers at the ceremony were Leo Arnstein, Commissioner of Welfare of New York City and president of Mount Sinai Hospital, Dr. James Alexander Miller, former president of the New York Academy of Medicine, and Dr. Ira Cohen, president

of the Hospital's medical board.

As long ago as 1901 Mayor Seth Low of New York, in laying the cornerstone of the Mount Sinai buildings on their present site, declared that if the hospital had been responsible for nothing else but the development of Dr. Alfred Meyer it

would have justified its existence.

Dr. Meyer is not only the eldest alumnus of Mount Sinai, but the second oldest living graduate of Columbia University. He was graduated from Columbia in 1874, and from its College of Physicians and Surgeons in 1877. He did postgraduate work at the universities of Vienna and Leipzig.

chell, Howard C. Sheperd, and Frankland F. Staf-

Alexander C. Nagle, of Scarsdale was re-elected president of the White Plains Hospital Association

at the annual meeting in January.

Also re-elected were George F. Thomas, treasurer, and Otto C. Jaeger, secretary. Edward M. West, A. J. Purdy, and Paul Fox, of Scarsdale, were elected vice-presidents.

Newton I. Steers, of Ridgeway, was elected to the board of governors. Mr. Nagle, Mr. Jaeger, and Robert P. Smith were re-elected to the board.

Donald C. Hutchins was elected president of the Geneva General Hospital board to succeed William Fink, and other officers of the board were re-elected.\*

The entire slate of officers of the Saranac Lake General Hospital was re-elected at the annual meeting of the Board of Directors.

Those renamed are: T. Edward Williams, president; Miss Celeste Thieriot, vice-president; Arthur Alliason, treasurer; Charles S. Barnet, secretary, and Mrs. Joseph L. Nichols, honorary vicepresident.

Directors named for the new year are: Mrs. Irving Altman, Dr. E. R. Baldwin, Mrs. Lawrason Brown, Miss Julia Conklin, Fred Conrad, E. L. Gray, Mrs. F. Ferris Hewitt, Dr. Hugh Kingshorn, Clifford McCormick, D. S. McCrum, C. M. Palmer, Miss Mary Prescott, Aaron Shapiro, Miss Madeline Smith, Mrs. Robert Wainwright, and Thomas P. Ward\* Ward.

Dr. Meyer was appointed to the Mount Sinai House Staff immediately after his graduation from medical school. He subsequently served as a member of the Hospital's attending staff until 1919 when he retired from active service and was elevated to his present rank of consulting physician to the

Hospital. Among Dr. Meyer's many-sided activities, that which has brought him the widest world renown has been his championship for more than half a century of the struggle against tuberculosis. He was one of the founders of the National Tuberculosis Association and served as one of its principal officers in various capacities for many years. He was active in organizing the International Congress on Tuberculosis in Washington in 1908. Following that meeting Dr. Meyer, single-handed, collected funds to bring to New York the exhibit which was compiled for the Congress. Placed on view here at the Museum of Natural History, it was seen by 750,000 people and played a significant part in proposing the public to the importance of control of arousing the public to the importance of control of the "white plague."

In 1919 Dr. Meyer was one of the incorporators and first directors of the New York Tuberculosis Association. Last year this association awarded

him a testimonial for his many years of service.

Dr. Meyer's crusade against tuberculosis started before the turn of the century. In 1899 he was appointed visiting physician to the sanatorium which

[Continued on page 552]



The potentiation of the central action of phenobarbital by the belladonna alkaloids (Friedberg, Arch. f. exp. P. & P. CLX, 276) renders possible attainment of desired effects with relatively small doses, thus avoiding 'hang over' and other unpleasant side actions. In contrast to galenical preparations of belladonna, such as the tincture, Belbarb has always the same proportion of the alkaloids.

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had been opened by the Montefiore Hospital at Bedford Hills, New York. When Dr. Meyer first started his work there, the institution was housed in a small remodeled farm house. At Bedford

Hills Dr. Meyer introduced the method of treatment by artificial pneumothorax—collapsing of the infected lung to permit it to rest and heal—a few years after its discovery in Italy by Dr. Carlo Forlanini. Here, too, Dr. Meyer developed occupational therapy for tuberculous patients, giving them individual garden plots to cultivate.

pational therapy for tuberculous patients, giving them individual garden plots to cultivate. Several of the principal public tuberculosis sanatoria in New York State owe their establishment in considerable measure to Dr. Meyer's efforts. The first of these was the Ray Brook Sanatorium, which was opened in 1904 and which placed New York State second only to Massachu-

culous poor.

Dr. Meyer was largely responsible for the founding by New York City of its municipal tuberculosis sanatorium at Otisville. He was also active in the establishment of the Sea View Hospital and was chairman of the research advisory board of the National Jewish Hospital for Consumptives in

setts in establishing a state hospital for the tuber-

The Village Board of Ilion has directed Fred. J. O'Donnell, village attorney, to prepare the necessary papers to submit to the State Legislature which will permit the board to increase its annual contribution to Ilion Hospital to \$10,000 yearly.

Denver.

At present the sum of \$5,000 is given the hospital annually, which provides for the operation of two free beds, including nursing and hospital service.

Duncan Wemyss, president of the hospital board,

Duncan Wemyss, president of the hospital uses states that since the new wing has been put into use and the repairs and renovations are about completed, space in the hospital is approximately doubled.\*

Bellevue Hospital patients today are older persons, their average stay is longer, and the hospital mortality rate is significantly lower than was the case at the turn of the century, according to a statistical analysis of admission trends at Bellevue Hospital, New York City, published in the current issue of Hospitals, the journal of the American Hospital Association.

Association.

Basing their conclusions on analyses of two five-year periods (1923–1927 and 1935–1939), Beatrice Kresky, M.S., and H. M. C. Luykx, M.S., report an increase of nearly 50 per cent in the total number of admissions to Bellevue, despite a decrease of 14 per cent in the population of the Borough of Manhattan, and an increase of only 25 per cent in the City of New York during the same period.

Despite this increase in admissions, hospital mortality has shown a sharp decline. Meanwhile, the average age of patients increased more markedly than the figure for population gains, with a significant gain in the number of cases treated for diseases of the cardiovascular system and diseases of nutrition and the endocrine system. Correspondingly, there was a decline in the proportion of patients suffering from rheumatic heart disease, infectious diseases, and diseases of the central

nervous system.

The study, according to the authors, suggests the importance of making adequate plans for further changes in admission trends.

[Continued on page 554]

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## DOAK CO.,INC. CLEVELAND, OHIO

Participating as organized individual units in The Fourth War Loan drive, Yonkers' four major hospitals accepted an aggregate of \$440,000 for the purchase of one ambulance plane each.

The institutions were: St. John's Riverside, St. Joseph's, Yonkers General, and Yonkers Pro-

fessional hospitals.

Plans for their participation were formulated by Mrs. Frank Smart, chairman of the Women's Division of the Yonkers War Finance Committee, and William J. Witte, a member of the Finance Committee's executive body.

The airships, C-3 ambulance planes, are built to carry fifteen to twenty litters of wounded and are complete with field packs containing blood plasma, medicine, narcotics, and bandages. Each plane

will be named for the sponsoring hospital.

In charge of the hospital campaigns were: St. John's—Mrs. E. A. Fitch and Mrs. A. N. Benedict; St. Joseph's—Mrs. R. R. Ballantoni, president of the hospital's auxiliary, Mrs. Terence J. O'Neill, and Mrs. Francis Giordano; Yonkers General—John C. Kelly, president of the hospital's board of John G. Kelly, president of the hospital's board of directors; Mrs. John E. Heintz, in charge of the junior committee; Yonkers Professional—Miss junior committee; Yonkers Professional—Miss Florence Bracken, superintendent of nurses, who will announce her assisting committee shortly.\*

The Association of Private Hospitals, Inc., of New York City, announces the election of the following officers for the year 1944: president, E. John Dolan, M.D., F.A.C.S.; vice-presidents, Albert Fritz, M.D., Alexander Kaye, M.D., F.A.C.S., Max S. Rohde, M.D., F.A.C.S., Morris Mason, M.D.; secretary-treasurer, Oscar Gottfried.

The Binghamton Sun of January 18 carried the following announcement:

Transfer of title to the Bradford Lord Memorial Hospita property in Endicott from the board of managers of the Binghamton City Hospital back to the original owner, Chester B. Lord, and the immediate gift of the \$50,000 site and buildings to the Boys Club of Greater Endicott, Inc., by Mr. Lord was speeded last night through action taken by Binghamton was speeded last night through action taken by Binghamton City Council. Thus the closing of an institution which for City Council and the state of the state of

Club. . . .

Kingston Hospital will receive a share of a donation of \$1,000,000 received by the United Hospital Fund from a trust fund established in 1937 by Jacob H. Schoonmaker, of New York City, who died

The gift, to be known as the Jacob H. and Emma October 2, 1943. W. Schoonmaker Fund, has been invested and the resultant income will be added to the annual collection of the Hospital Fund, which is distributed among the sighty-saven member bespitals and home the eighty-seven member hospitals and home.

The rest of the original trust set up in 1937 has been divided among the Community Service Society of New York, New York Foundling Hos-pital, Fordham University, and Kingston Hospital.\*

Dr. Eugene W. Bogardus, since 1940 superintendent of the Onondaga Sanatorium in Syracuse, [Continued on page 556]

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### INDUSTRY LOOKS TO CASUALTIES FOR MANPOWER

Modern Industry informs its readers that more than 800,000 servicemen were discharged from hospitals and service camps during 1943-and intimates that more than a million will be discharged this year. All these, says the editor, are potential manpower for U. S. industry. The chief problem, however, is how to deal with mental and nervous disorders—the number one war casualty.

Jobs will have to be analyzed again to see where these men fit. Employment standards will need rewriting. A new human relations approach will

have to be adopted.

Until Victory Day, when general demobilization gets under way, returning service men will be of two kinds.

The first are the battle casualties with physical injuries or severe nervous shock, or both. require treatment in Army and Navy hospitals and will not be discharged until progress has been made toward their rehabilitation. Plastic surgery, physiotherapy, psychiatric treatment, and above all occu-pational therapy are now used to rebuild scarred bodies and confused minds, and to restore lost confidence.

The second group of returning men are those discharged from training camps and embarkation points behind the battle lines as unfit for military service. Rejection in these cases may result from physical limitations—heart, lungs, feet, stomach ulcers; from mental instability—anxiety complexes, phobias, etc.; or from inability to make the mental and social adjustment to army life.

Many problems and inconveniences are involved in re-employing nervous cases. But the majority of companies have enough variety of jobs and

facilities to tackle the matter.

"And thus," points out the article, "they have the opportunity to work a real miracle in human relations. All psychiatrists agree that the quicker a nervous case gets back into steady, agreeable work, the sooner he will be completely normal. Delays, promises of pensions, public over-concern can permanently undermine self-respect and selfconfidence and create a permanent public charge out of a man who could have been an independent, self-respecting asset to industry

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move to provide adequate and modern quarters for upward of
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### KEEPING UP-TO-DATE ON NEW **PRODUCTS**

An article in Modern Hospital (by Richard Highsmith, Administrative Assistant, Evanston Hospital, Evanston, Ill., Jan. 1944) calls attention to the filing of material received in the mail from

pharmaceutical houses for valuable reference. States the article—"The amount of literature received from pharmaceutical houses has increased to a point where the problem of filing it demands some careful thought. . . . Although much of the printed matter circulated deserves no better resting place than the wastebasket, there is a goodly por-tion which can be of inestimable value to both the pharmacist and the physician. Contained in the better write-ups are concise summaries of products, including clinical use, dosage and package information, which enable the physician to review quickly the salient points of a drug without covering voluminous works.

"The problem of filing the publications after they have been selected from the general run is essentially one of determining the kind and extent of filing method to employ. Being a library procedure the number of ways in which the material may be classified are many. . . In keeping with this thought, a convenient system has been devised which amounts to a modified alphabetical method.

"Since an analysis of the total material to be preserved reveals that a greater portion is published by four or five major companies, it has been found desirable to maintain separate and distinct alpha-

betical files for each company. The material from the other companies is then pooled and alphabetized as a whole."

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[Continued from page 554]

has resigned, effective March 1, to become head of the medical department of the Reader's Digest Co. at Pleasantville, New York, it has been announced by Dr. H. Burton Doust, chairman of the board of managers of the institution.

During Dr. Bogardus' years at the Sanatorium, tuberculosis treatment programs were expanded to include modern surgical collapse procedure, and the x-ray and clinical laboratories were completely renovated, along with numerous adjuncts to the work and facilities of the institution. The educational program among school children was extended to include high as well as grammar schools.

Dr. Bogardus was graduated from Syracuse University College of Medicine in 1926. He served an internship at Crouse-Irving and University hospitals, and practiced medicine in Syracuse from 1927 to 1929.

In May, 1928, he began a course at Trudeau School, Saranac Lake, in tuberculosis work and a year later was appointed associate director of the Tuberculosis Division of the State Health Depart-

During 1930 and 1931 he attended Johns Hopkins University, where he won a master's degree in public health. He then became director of the division of tuberculosis of the Westchester County Health Department, a post he held when named to the Onondaga Sanatorium superintendency.\*

Children's Hospital, in Buffalo, celebrated its fiftieth anniversary in 1943 with a varied program. The hospital staff entertained the board of

managers at dinner one evening, and they discussed together the work of the hospital and the aims of the institution. City newspapers gave excellent publicity and merchants gave space in their advertisements and windows to tell of the hospital's half-century of work. Radio stations gave time for programs put on by the staff, the board, and other friends of the hospital, and for five Sundays staff members gave public lectures on child welfare subjects.

The week of November 29 was declared "Children's Hospital Week" by the mayor of Buffalo, and many clubs, mothers' groups, church groups, and other organizations visited the hospital for an open house. Exhibits by the various department heads showed the work of the hospital; and doctors and board members appeared before many groups to describe the work.

Through benefits, several groups put at the disposal of the hospital an adequate equipment fund.

Little Falls Hospital celebrated its fiftieth anniversary on November 15, 1943.

The National Council of Jewish Women has made a gift of \$10,000 to the U.S. Naval Hospital at St. Albans, Queens, New York.\*

The new Massena Memorial Hospital was opened for inspection on January 2 and for receiving patients

Miss Mildred Higgs, former superintendent of Van Duzee Hospital, Gouverneur, is superintendent.\*

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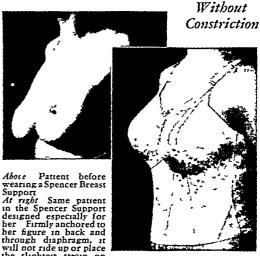
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brother, but it wasn't good enough."

—Pvt. Irwin Shaw, playwright
(author of "Bury the Dead" and "The Gentle People"), now in army.

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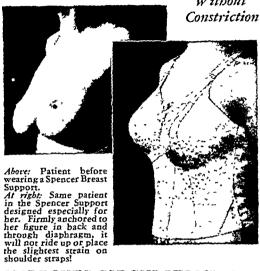
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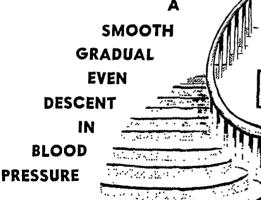
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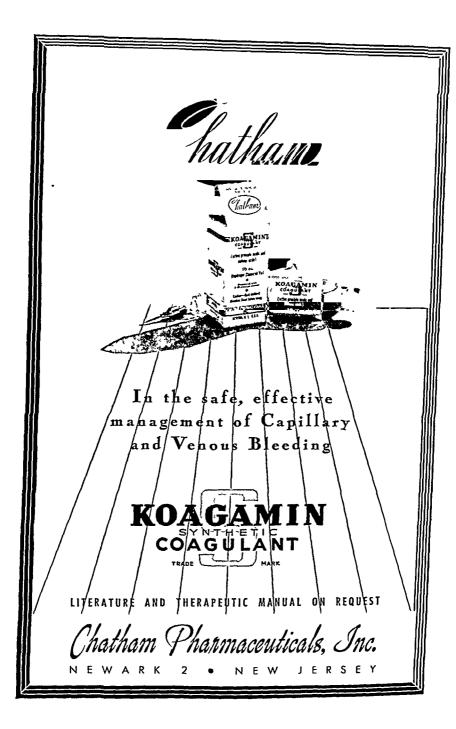
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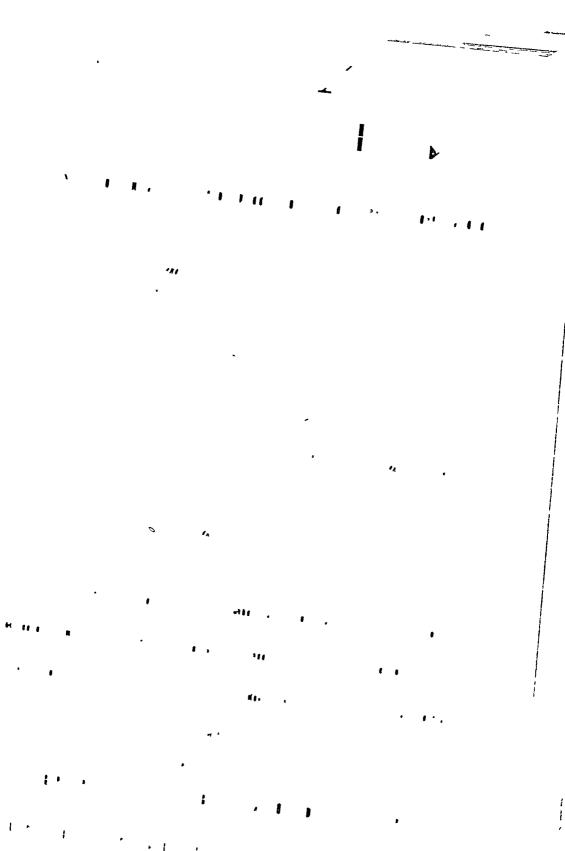
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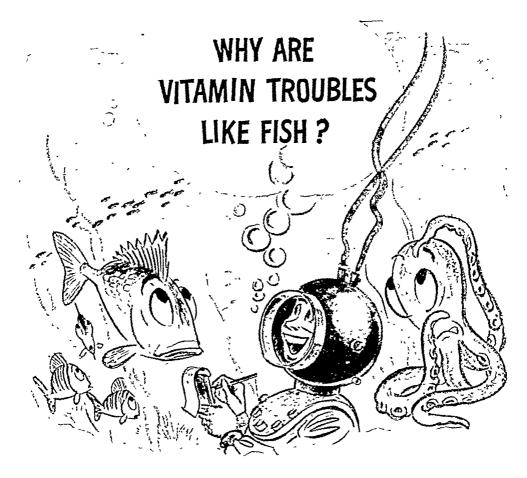
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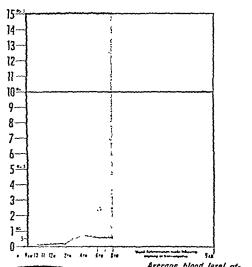
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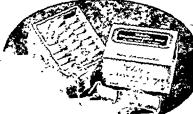
Chart contrasts sulfonamide blood level commonly maintained in systemic treatment, with that attained even with maximal dosage of Sulfathiazole Chm White area represents the sulfathiazole blood levels in an experimental of the sulfathiazole blo

in an experimental group of children

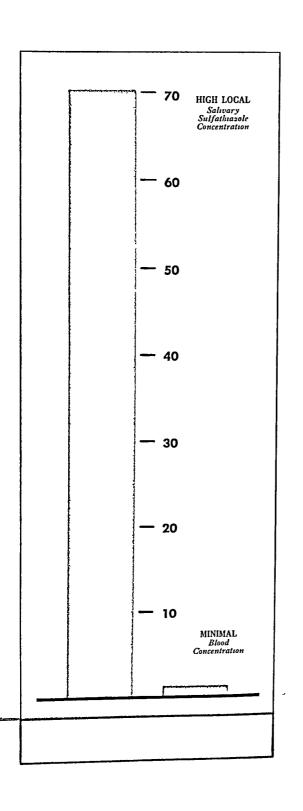
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- ern Univ. 16 179 (Oct.) 1942 2 Massel, N. M. J. Lab & Clin Med., 24 380, (Jan.) 1939
- 24 380, (Jan ) 1737 3 Boyer, N H. J A M.A., 122 307, (May
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\*Circular Letter No. 17. War Med. 2 466 (May) 1942 \*Committee on Chemotherapy and Other Agents and the Committee on Surgery of the Division of Medical Sciences of the National Research Council. War Med. 2 488 (May) 1942.





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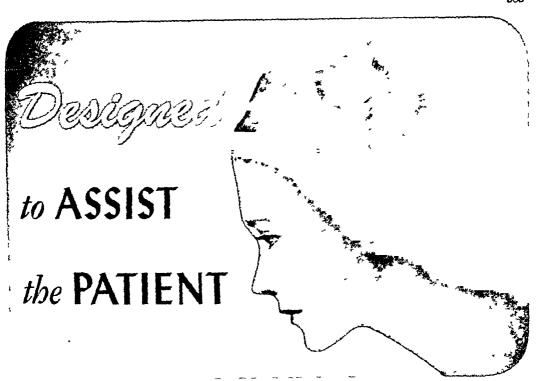






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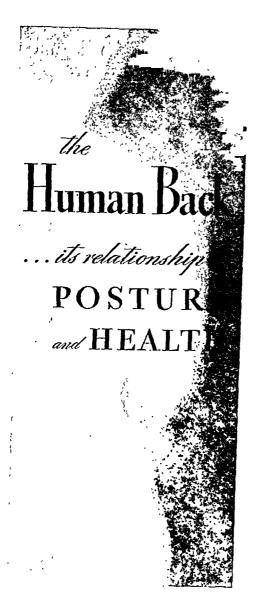
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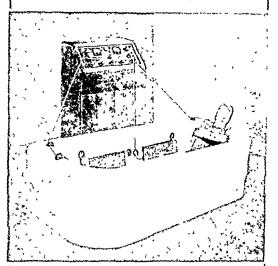
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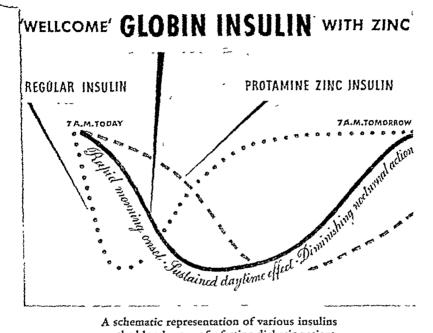




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 Wellcome' Globin Insulin with Zinc, a new type of insulin, offers an advance in diabetic control. It provides a rapid onset of action; strong prolonged effect during the day when most needed; and diminishing action at night. Nocturnal insulin reactions are rarely encountered.

'Wellcome' Globin Insulin with Zinc conforms to the needs of the patient. A single injection daily has been found to control satisfactorily many moderately severe and severe cases of diabetes. 'Wellcome' Globin Insulin with Zinc, a clear solution, is comparable to regular insulin in its freedom from allergenic skin reactions.

'Wellcome' Globin Insulin with Zinc is accepted by the Council on Pharmacy and Chemistry, American Medical Association, and was developed in the Wellcome Research Laboratories, Tuckahoe, New York. Registered U.S. Patent Office No. 2,161,198. Available in vials of 10 cc., 80 units in 1 cc.







# The voluntary choice of remaining at home during two or three

The voluntary choice of remaining at home during two or three days of the menstrual period cuts sharply into the attendance of many women at critical war work.

In special cases, the need for discriminating therapy—analgesic, hormonal, emmenagogic, even surgical—may justify home confinement.

But for so many, absentecism is motivated solely by a desire to avoid the risk of physical distress and emotional uncertainty, caused by vulval irritation from perineal pads... or by fear of olfactory offense... or conspicuous bulging under slacks or coveralls.

That such risks can be safely avoided by the use of Tampax menstrual tampons has been known for years by thousands of women in all walks of life—in the theater, in sports, business or social life. For them, this improvement in menstrual hygiene has provided a genuine aid to uninterrupted activity.

They have found that Tampax is free from the prospect of vulvovaginal irritation. It cannot cause noticeable bulkiness, or expose the flux to odorous decomposition. Its three absorbencies permit selection, to meet personal daily needs, amply and safely.

Compression in a one-time-use applicator facilitates insertion without orificial stress, and exclusive flat expansion assures comfortable accommodation in situ. Special cross fiber stitching prevents disintegration of the tampon, so that dainty removal may be effected without probing.

Today the Tampax habit becomes-more than ever-the logical one for adoption . . . and for professional recommendation.

TAMPAX INCORPORATED . PALMER, MASS.

# TAMPAX

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	Palmer, Mass Please send me a professional sup-

# NEW YORK STATE JOURNAL OF MEDICINE

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**VOLUME 44** 

MARCH 15, 1944

NUMBER 6

#### Editorial

#### A Call for Action

In an open letter to American employers, the Reader's Digest<sup>1</sup> condenses from Forbes Magazine a very pertinent appeal by Austin M. Fisher, well-known labor consultant, under the title "Insure Your Workers' Read it, doctors of medicine! You have medical expense indemnity insurance for sale. It is medicine's own plan, but it won't sell itself. It must be sold like any other form of insurance. It will appeal to employers and to working men alike because it has the approval and whole-hearted backing of physicians. And in the final analysis. the doctors are the ones who must make any insurance plan work, medically. You can plan any sort of clock, for example, but it won't run well without the works, no matter how much it may look like a clock. Congressional Record please copy. We quote Mr. Fisher in part:

Eric Johnson, President of the U.S. Chamber of Commerce, has been saying to his fellow businessmen, "Gentlemen, we know free enterprise can work. It's up to us to see that it does..."

... if free enterprise is going to survive, it will have to provide a progressively modern standard of living for working people and at the same time give them reasonable seturity against the hazards of disability, old age, death, and unemployment

ability, old age, death, and unemployment.

Let's look at one of the sorest spots in our industrial body: the loss of income due to sixtness.

trial body: the loss of income due to sickness.

The average industrial worker today earns about \$44 a week. Whether you like it or not, he isn't taving much of that; and in normal times, with a lower income, he saves practically nothing. The average male worker loses seven to nine days a year, and the average female worker eight to twelve days, because of illness....

A study made by the National Industrial Conference Board shows that the cost of providing sickness benefits for employees varies from 0.0025 per cent to 1.7 of the annual payroll.

Striking squarely at the heart of the matter Mr. Fisher warns employers:

Unless you do something about it first, the political representatives of your workers are going to do it for you and with your own money. They may put through a payroll health insurance tax. Under any administration, Democratic or Republican, that tax would be collected by thousands of new federal jobholders who would spend millions of dollars "administering" the plan and in building up a loyal following for the next politician who is smart enough to beat you to the punch.....

This warning applies equally to the medical profession, in our opinion. Medical expense indemnity insurance will not sell itself even with such able assistance as Mr. Fisher's letter to employers.

The medical and hospitalization provisions, Title IX, of the Wagner-Murray-Dingell bill (S. 1161; H.R. 7534) present the picture of what may be expected if free enterprise fails. And, under date of February 17, the New York Herald Tribune<sup>2</sup> reports:

The British government proposed today a postwar national health scheme envisaging free medical health service for every person in the country at a total cost estimated at £148,000,000 (\$592,000,000) annually.

annually.

The "health charter," which was presented to the House of Commons in a White Paper, represented the government's first move in the struggle over the controversial Beveridge Plan.

The main points in the plan, which will be debated in the House within the next three weeks, are free doctors, drugs, medicines, hospital treatment, and consultants' advice....

#### But----

From the Supplement to the New Zealand Medical Journal<sup>3</sup> Mr. W. F. Buist,<sup>4</sup> in discussing future medical services, says, in

ut so far I have learned of no other suggestion which provides the necesety valve which such an arrangement would give. It would be tragic if a lot il business concerns were wrecked and vorkers thrown into idleness because of nability to cut through the red tape ed in getting their claims settled.

RESPONSIBILITIES OF CONTRACTORS

te making these statements with re-to action by the Federal authorities. I Alze, also, that business concerns which war contracts have a responsibility on part to facilitate speedy settlement of part to latentare speedy settlement of fated war contracts. They have the re-bility for preparing their claims ac-y and speedily and presenting them per form. Some progress has been foward gettling a recognition of the lat industry mutst have in this respect at industry must play in this respect, rently more and more experience of ort is now being gained. The conng services of the Government, I know, very helpful attitude toward this sit-, and the local office of W. P. B. has shed a regional advisory service for war faced with problems resulting from t termination. That is a very helpful

ation to make possible the prompt nt of terminated war contracts is now. It will be unsafe to wait until how it will be unsafe to wan and the a deluge of contract terminations to through legislation on short hotice toblem is too complicated to be death. flectively in that way.

ATERIALS FOR CIVILIAN PRODUCTION ddition to making provision for the tent of terminated war contracts, there the task of facilitating the flowe of als for civilian production as soon as materials can be spared from war pur-I hope that we shall not have unement here in Massachusetts because materials, which are physically incomes an inte United States, the unavailable by manufacturers as it result of leg-or administrative restrictions. The legislation vesting the priority power President, which power of the Presi-yelegated to the Chairman of the War

yelegated to the Chairman of the war on Board, is probably adequate to the flow of materials, but it may be ry for the Congress formake sure that uninistration of the priority power by a Production Board is directed effectively. toward the speedy and smooth resump-if civilian production The War Pron Board should be Expected to elimits limitation orders his conservation and its allocations restems just as as the needs of the trap program per-

use of their effects on plans for re-yment, I foresee that these problems tiling canceled contracts and securing ipplies of raw materials for civilian pro-in will presently be matters of wideconcern here in Massachusetts.

ummarize, my specifid recommenda-ire that legislation should be enacted

r the following points! terminated contracts should be setlegotiation by the confirmating agenhe Government, and the negotiated int should be final in the absence or misrepresentation. Let int partial payments amounting to

4. Contracting agencies should be required to give prompt clearance of claims on work in process. There should be clear-cut procedures for authorizing the removal of Government-owned inventories and machines, with storage at Government expense, in order that civilian production may be started.

5. The dilemma of the subcontractors must be resolved. At the present time the Government exercises the right of approving all payments in settlement of subcontracts but does not assume any responsibility to the subcontractor, with the result that the subcontractor in many cases cannot secure action by either the prime contractor or the contracting agency. I suggest that the local settlement committees proposed above should be empowered to approve settlement of subcontracts if a delay occurs in approval by the contracting agency.

#### B. DECONTROL OF MATERIALS

1. As soon as warrounditions permit, the rules for the relies of poarce raw materials should be raying the with a view to facilitating the rapid recumption of civilian gloduction.

#### A Magnificent Job

EXTENSION OF REMARKS

#### HON. LOUIS LUDLOW

OF INDIANA

IN THE HOUSE OF REPRESENTATIVES

Tuesday, January 11, 1944

Mr. LUDLOW. Mr. Speaker, Indianapolis and Indiana are very proud of the great pharmaceutical house of Eli Lilly & Co., which has processed its millionth blood donation without a cent of profit. This record is in keeping with the fine, generous spirit which this firm always has manifested in the service of our country and which long ago brought to it the recognition of an Army-Navy E award. Commenting on the com-pany's contribution to the blood campaign, which means so much in saving the lives of our precious boys, the Indianapolis News says editorially:

#### LILLY'S CONTRIBUTION

In the midst of charges that some concerns are making an unholy profit from war contracts it is heartening to learn that the Indianapolis laboratories of Eli Lilly & Co. have processed 1,000,000 blood donations entirely on a nonprofit basis.

In addition to performing this service at cost, the expense involved has been decreased constantly through the introduction of more efficient methods.

There certainly could have been nothing unethical if the Indianapolis pharmaceutical

house had sought a minimum profit for the

work it has been doing.

Donations of blood at Atlanta, Chicago, St. Louis, Detroit, Cincinnati, Louisville, Columbus and Indianapolis have been converted into live-saving plasma at the Lilly plant, involving the installation of new equipment and the employment of much additional

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nificent job. The patriotic Americans who donated this blood, however, got nothing for their con-tributions and the Lilly Co. determined that its connection with the effort to strengthen the wounded on every fighting front should be entirely shorn of private gain. From be-ginning to end, it has been and is—a magThe Gates Must Not Be Closed

EXTENSION OF REMARKS

#### HON. SAMUEL DICKSTEIN

OF NEW YORK

IN THE HOUSE OF REPRESENTAT

Tuesday, January 11, 1944

Mr. DICKSTEIN. Mr. Speaker. leave to extend my remarks in the ord, I include the following editorial the Daily Mirror of January 4, 194 THE GATES MUST NOT BE CLOSE

When Congress reconvenes on Janua it should take up the Gillette-Taft-Bald Rogers resolution.

This resolution calls for the format reate m a P e Unite of Jev tlo are now being systematically exterm by the Nazis and their Quislings

When the Presidential commission work, one of the first things it should to seek the abrogation of the Cham) "White Paper" of May 1939.

At present, Palestine is being admit by Great Britain in conformity with the composite of the "White Paper," tue of tine is

to be reduced to a permanent mid 33 percent in the country and the light to Jews is to be practically pro

stopped

A DIRECT REPUBLATION

A DIRECT REPUDIATION

If his is a direct repudiation on English of the League of Nations Mandritic Balfour Declaration incorporated manifact of 1917.
According to this declaration, Palest to become a national Jewish home unprotectorate of England.

In 1929, after the Jews had created ern of filization in what was practic Arabigm desert, England turned he on helicolemn promise of 1917.

This pierfadity of Britain toward to the desert of the province of the theory was difficulted by no one more vig than by Winston Churchilli Parifar the design on the "White Paper" when he is add.

"Man CHURCHILL'S REGET"

"As dis intimately and responsible."

"As chie intimately and responsible cerned and the earlier stages of our proficy. Include not stand by and see engagements into which Britain has been added to the control of the control engagements into which Britain has before the world set aside for reason ministratile convenience or for the quiet life, I should feel personally rassed in the most acute manner in myself by allence or inaction to what regard as an act of repudiation. "I regired very much that the pleds Balfour Declaration, endorsed as it by successive governments, and the tions index which we obtained the nave both been violated by the Governorse."

proposition of the proposition of the proposition of the provision the four because of the provision that th immigration can be stopped in 5 ye, by the decision of an Arab majority.

by blodiecision of an Arab majority, a philippreach of a solemn obligation aligne Palestine Mandate was ord the deague of Nations, it cannot be greated even by Great Britain herself elig-consent of the League.

A SOLEMN OBLIGATION But the League did not give its con But the League di

that the meetings of your representative bodies be well attended, that you inform yourself of the issues to be decided, that you show by your attendance at meetings, and especially at the Annual Meeting of your State Society, that you, personally, are actively interested in carrying on for yourself and for your absent colleagues.

This is the third year of war! Upon us who serve on the civilian front the stresses and pressures are increasing mightily. is becoming harder to find time to attend meetings, harder to travel, harder to keep up not only with the innumerable scientific advances accelerated by the war but also with the study of the public responsibilities of medicine, the public relations of your associations with the people and their government. The people, the voters, your patients can have what kind of medical care and medical practice they want. can have it because the powers of government in this nation still remain in their hands, secured by the Constitution. You, as the trusted physicians of the people, can advise them. You have created the standards of medical practice which they now enjoy. You have fought to maintain those standards against all who would lower them or tear them down. This is your fight; the fight you, personally, are committed to carry on for yourself and your absent brothers, and for the people of the nation; the fight you have waged for many years but which now requires of you greater personal attention and sacrifice of time and effort, because of your absent brothers. You represent them now.

595

You will not fail the absent colleagues who rely on you; you will not fail the public which trusts you to study scientifically, sympathetically, the revisions in medical thought and practice which may be necessary in the public interest, in the public welfare.

You will attend the Annual Meeting, May 8-11, 1944, in greater numbers than ever; you will inform yourselves of scientific matters; you will contribute as you always have in your scientific papers to the steady progress of the art; you will talk with many people and listen to what others have to say; you will encourage and support your county society delegates by your presence, and by your interest compensate the exhibitors, who, year after busy year, contribute their full share to the continuing success of the Annual Meeting.

Buy more War Bonds and mark your calendars now!

#### Employment of the Physically Handicapped

It may be expected that physicians acting as consultants to industry or as front-line medical men to small plants or groups of small plants will be asked about the employability of the physically handicapped.

In this country there are now approximately 133,000 totally blind, and more than 425,000 persons blind in one eye. "An estimated 65,000 are totally deaf, 60,000 are mutes, and 1,547,000 are classified as hard of hearing. Approximately 3,700,000 suffer from a cardiac condition and 680,000 have tuberculosis, according to recent estimates, while 2,500,000 persons in the United States are afflicted with orthopaedic handicaps."

In view of the growing manpower shortages, and in the interest of the rehabilitation of these physically handicapped

persons, industry is making every effort to absorb them into useful productive occupations.<sup>2</sup> It is of the greatest importance that physicians should realize the large number of occupations in which these persons may safely be utilized. A suggestive list:

Persons with amputation of one arm
Electrician and inspector
Master mechanic
Foreman
Clerical checker
Machine operator
Stockman, storekeeper
Watchman, guard, policeman
General inspector
Persons with amputation of one leg
Grinder and polisher
Ordnance man
Toolmaker
Welder, gas and electric
Cutter
General inspector

part, of the government scheme now operating in New Zealand:

The system is top-heavy, cumbersome, and entails not only departmental clerical work but a similar position as far as doctors are concerned—too large a proportion as compared to the legitimate function of curing the sick. I can only repeat that a better and simpler method can be evolved by a more sympathetic attitude towards the profession. However, "exploitation" comes into the picture. This is probably quite true. But by seeking more cooperation with the profession such abuses could be stifled.....

When one turns to reports of what is happening overseas—at home and in other parts of the British Empire—the salient feature is a general agreement that any alteration in the medical services will not take place until after the war. Another interesting commentary is that the various Ministries of Health are discussing matters with official bodies of the medical profession, and that means that medical planning for the future is the order of the day.

In Australia, after a thorough investigation by a Parliamentary Committee and various official medical bodies, a Medical Planning Committee has been set up by the Federal Council and an organiser appointed. The immediate result is that a unanimity of medical opinion covering the whole of Australia has been obtained. It has also been agreed that any method of service to be evolved shall definitely adhere to the principle of retention of private practice. The idea of group practice is being considered but it is pointed out that it is not easy to establish group practice and that this must be done aradually.....

Here speaks the voice of experience with government-imposed systems of medical practice, the alternative to American medicine's proposed medical expense indemnity insurance for this nation, supported by free enterprise and free men.

It is not reasonable to assume that what has come to pass in Britain, in Australia, in New Zealand, in Canada will not happen here. To talk about free enterprise is not enough. To offer medical expense indemnity insurance is not enough. It must be sold to employer and employee, alike—and preferably by those who know how to do it. That problem has to be squarely faced, with no ifs, ands, or buts about it. Why not now? If you are sick, call in a good doctor; if you have something to sell, employ a good salesman; but don't invite the salesman to diagnose illness or a doctor to sell insurance; otherwise you may have to compromise by accepting a politician as a substitute for both.

#### Annual Meeting

Spring! In New York City. At the Hotel Pennsylvania. Does it suggest anything to you, Doctor? Look up from that income tax blank with which you are wrestling just for a moment; look out of the window at the pussy willows or the blizzard, or the sleet storm or whatever happens to be the scene at the moment.

Have you forgotten something? War Bonds? Aunt Mary's birthday? Your wife's anniversary present? The letter she gave you to mail last week? The call on Mrs. Jones you promised to make day before yesterday? Physicians' registration fee? County Society dues? None of these? There must be something—

Ah! In January in these columns we asked you to mark off in your appointment book, or on your calendar, the date of the Annual Meeting, May 8-11, 1944. Did you do it? Certainly you did! If you didn't just happen to be too busy at the time to read your Journal; or if you were

in the armed services; or just too weary to read anything or to remember anything you had read.

Maybe, however, you were interrupted as you were about to mark your calendar or your engagement book for the dates of May 8-11, Annual Meeting, Hotel Pennsylvania, New York City. So, do it now!

Much medical history is in the making. Important decisions must be made this year which will be far-reaching in their ultimate effect on the practice of medicine.

It is the duty of every one of us who can to help make those decisions correctly in the public interest. Your colleagues who are serving the nation in the armed services have confidence that you will not fail them, that you will make it your duty to represent them in the meetings of your county societies, your state and national associations. If they cannot count on you, on whom can they rely? It is more than ever necessary

<sup>&</sup>lt;sup>1</sup> Feb., 1944, p. 1.

<sup>&</sup>lt;sup>2</sup> Feb. 18, 1944, p. 1 (q.v.) et seq.

Dec., 1943, p. 6.

Chairman, Medical Planning Commission.

#### THE NARCOTIC PROPERTIES OF CARBON DIOXIDE

M. H. Seevers, Ph.D., M.D., Ann Arbor, Michigan

It Is no novelty to state that carbon dioxide has narcotic properties. Most anesthetists are familiar with the fact that Hickman¹ advocated carbon dioxide as a general anesthetic in the first part of the last century and that Paul Bert² studied the gas extensively in animals as early as 1878. Probably most physicians consider this information to be largely of academic interest, since the terms carbon dioxide and respiratory stimulation have come to be almost synonyms in medical teaching. The point of view that narcotic concentrations of carbon dioxide can be attained only by using the compressed gas from a cylinder has many adherents even among medically trained anesthetists.

Such being the case, it may be worth while to point out some of the evidence about carbon dioxide which is difficult to reconcile with such a point of view. For it is probably true that a busy anesthetist, even the most expert, has difficulties with carbon dioxide almost every day of his life and uses narcotic concentrations of this gas intermittently, or in some instances regularly. whether he is aware of the fact or not.

Undoubtedly the discussion which follows will be of interest primarily to those who are determined to conduct anesthesia in such a manner that the patient is required to make minimal biochemical and physiologic readjustments even though it becomes necessary to modify existing technics in order to accomplish such an objective.

Those who have never attempted to respire 5 per cent carbon dioxide for an extended period of time have missed a disagreeable experience. If one is able to voluntarily respire 10 per cent carbon dioxide for more than a few moments he possesses more fortitude than the most. If he can retain consciousness after breathing 10 per cent carbon dioxide for fifteen minutes, I would suspect him of having a compensated respiratory acidosis from emphysema or some other allied respiratory ailment.

Yet there is good evidence to prove that we expose patients under anesthesia to these and higher concentrations of carbon dioxide with greater regularity today than yesterday, and that it is not always to the advantage of the patient to do so. Widespread use of the newer drugs and modern closed technics of administration have un-

Read by invitation at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 4, 1943. From the Department of Pharmacology, University of Michigan Medical School, Ann Arbor, Michigan. doubtedly increased the incidence of such exposure. Since patients under anesthesia differ from normal human subjects in that they are no longer capable of objecting to the disagreeable procedure of respiring high concentrations of carbon dioxide, their biochemical and physiologic resources must be marshalled to compensate for this overt threat to their security. If these resources have been greatly reduced during a recent bout with disease the added burden may be too great. During anesthesia with the older agents, administered by open or semiopen methods, as with the normal unanesthetized subject, an increase in the minute volume of respiration can parallel the increase in carbon dioxide in inspired air, so that the blood concentration of carbon dioxide is not increased appreciably. Complete compensation to 5 or 6 per cent carbon dioxide can occur in this fashion. If the respiratory mechanism cannot respond, or if the patient is forced to rebreathe a portion of his last expiration, an increase in the blood carbon dioxide with its effect on the acid-base equilibrium is inevitable. A few examples are cited to strengthen this case. Undoubtedly respiratory acidosis is a common occurrence in evipal and pentothal anesthesia. since these drugs depress respiration significantly.3 But these drugs are not specific, since any barbiturate, opiate, alcohol or, in fact, any depressant drug may bring about a similar result. In cyclopropane anesthesia administered clinically by the carbon dioxide absorption technic, it is a regular occurrence to find a carbon dioxide tension of 75-80 mm. and a pH of 7.15-7.20 in arterial plasma.4 This means that the blood is equilibrated with 10 or 11 per cent carbon dioxide in alveolar air, concentrations which are agreed to be narcotic by all those who have studied the problem on normal unanesthetized human subjects.

Figure 1 summarizes the principal data dealing with the effect of various concentrations of carbon dioxide on man.<sup>5-15</sup> Study of this chart will reveal that certain evidences of narcosis are present even with concentrations of carbon dioxide as low as 5 per cent; that 10 per cent is the absolute upper limit of tolerance if consciousness is to be retained; and that anesthesia of a sort occurs with 25 to 30 per cent carbon dioxide.<sup>5</sup> It is not good anesthesia, of course, since it is accompanied by convulsive phenomena. It is our purpose to discuss the effects of these high concentrations of carbon dioxide but especially those

Draftsman and apprentice Punch machine operator Planar machine operator Machinist, many types Patternmaker Carpenter, shop Foreman

Persons blind in one eye or with impaired activity in

both eyes Pipe fitter, shop Ropemaker Shipfitter Toolmaker Blacksmith Inspector Chipper foundry worker Coppersmith

Some positions suitable for the deaf Blacksmith Boilermaker, shop Forger, light, heavy, and drop

Furnaceman Loftsman

Sheetmetal worker, shop

Spot welder Shipfitter Riveter Punch machine operator Drill press operator Patternmaker

Draftsman, apprentice and principal

Grinder, surface, internal, dish, and cylindrical Welder, gas and electric Optical parts inspector Toolmaker Sheetmetal worker Machine operator Polisher Set-up man Carpenter

Persons with organic heart diseases, fully compen-

Ordnanceman Welder, gas or electric shops

Inspector

Layout man

Draftsman

Glass grinder and polisher

Operator, power sewing machines Optical instrument assembler and finisher

Painter Sheetmetal worker Welder, gas

Storekeeper, stockman Instrument maker

Persons with history of tuberculosis

Carpenter Loftsman Shearer Sheetmetal worker

Layout man Watchman Machinist Electrician

Optical instrument maker and assembler

Toolmaker<sup>1</sup>

Even from this very meager list, it becomes apparent that opportunities in business and industry for the physically handicapped are limited seemingly only by the amount of constructive imagination applied to their peculiar problems. This is a field in which physicians can and will be of the greatest assistance to industrial manage-The problem is one which calls for the highest quality of medical and surgical skills, cooperative, constructive ingenuity on the part of physician and management, and the assistance of federal, state, and local agencies concerned with the rehabilitation and re-employment of those already handicapped as well as the returning veterans and the veterans' organizations.

#### Hotel Reservations

Members of the Society who expect to attend the Annual Meeting May 8-11 should make reservations as soon as possible at the Hotel Pennsylvania in New York City. Write to Mr. James H. McCabe, Manager, Hotel Pennsylvania, New York, New York.

The following information concerning room accommodations and prices has been supplied by the Hotel:

Each room has a private bath—shower or tub and shower.

Room for one person per day—\$3.85, \$4.40, \$4.95, \$5.50, \$6.05, \$6.60, \$7.70.

Room for two persons per day (with double bed)—\$5.50 (shower only), \$6.05,

\$6.60, \$7.15, \$7.70, \$8.25, \$8.80. Room for two persons per day (with twin beds)—\$6.60, \$7.15, \$7.70, \$8.25, \$8.80,

\$9.90.

Suite (living room, bedroom, and bath)—\$10.00, \$11.00, \$13.00, \$18.00. For more than two persons in a double- or twin-bed room the extra charge is \$2.00 per day per person.

<sup>1</sup> Illinois M. J. 85: 1, 47 (Jan.) 1944. 2 Industrial Relations Bulletin, Natl. Assn. of Manufacturers, q.v.

the clinical point of view deals with concentrations of carbon dioxide between 5 and 10 per cent. There is considerable evidence to support the concept that even these levels may be depressing under many circumstances. Mental depression, ataxia, dizziness, and fatigue follow prolonged exposure to 5 and 6 per cent carbon dioxide in the normal human subject. Since it is not clear to what extent carbon dioxide at these levels alters the course of events during anesthesia, a series of experiments on animals designed to furnish evidence along these lines were undertaken.

Many investigators have studied the toxic and narcotic effects of carbon dioxide on normal animals following sudden and gradual exposure.16-21 There is fairly good agreement that concentrations of 10 per cent or less do not possess detectable narcotic action: that concentrations above 30 per cent will induce narcosis in most animals; and that concentrations of 40 per cent and above produce pulmonary edema, hemorrhages from exposed mucous membranes, and death within a relatively short time. Herbiverous animals, such as the rabbit, will tolerate somewhat higher concentrations; in fact, will survive even 80 per cent carbon dioxide for a period of fifteen minutes.16 Hibernating animals, such as the marmot, are very resistant to high concentrations.22 There is considerable information in the literature regarding concentrations between 10 and 20 per cent, but the results are not uniform, in part because of neglect of the time element and especially because of failure to distinguish between the effects of sudden exposure to a fixed concentration of the gas and the effects resulting from exposure to a gradually increasing concentration. We have been unable to find any previous description of experiments involving prolonged exposure to carbon dioxide for weeks or months.

In order to establish our own controls and to fill some of these gaps we have accomplished a considerable number of experiments on the rat, rabbit, and dog.<sup>23</sup> In all of these experiments the oxygen content of the inspired air was maintained at 20 per cent or above, unless otherwise stated. Most of these experiments have been done on the rat, since large numbers of animals could be used. In the main, the effects of carbon dioxide on the other animals studied are qualitatively similar, and although all lower animals are somewhat more resistant to carbon dioxide than man, the essential features of action are identical.

Following sudden exposure, the maximal tolerated concentration of carbon dioxide for the albino rat lies between 10 and 20 per cent. All animals survive 10 per cent indefinitely. A few will succumb to 15 per cent, whereas only a few

will survive 20 per cent. None will survive 25 per cent carbon dioxide for more than thirty-six hours, and 50 per cent is uniformly lethal within six hours. Toxic doses are always associated with pulmonary edema. A detectable grade of depression occurs with concentrations of 20 per cent or above, although the animals are not deeply narcotized until 30 per cent concentration is obtained. In the rabbit and in the dog, as in man, narcosis is associated with convulsions.

Rats will survive 10 per cent carbon dioxide for as long as thirty days even if suddenly exposed. During this period the usual respiratory response to carbon dioxide is maintained without diminution as far as can be detected. The only objective sign observed during this time is a weight loss ranging from 15-25 per cent. Animals so exposed behave normally during the exposure and after removal.

Rats will tolerate for long periods concentrations even as high as 23 per cent carbon dioxide if this concentration is attained gradually over a period of several days. Several animals have survived a total of twenty-nine days in concentrations between 20 and 25 per cent. Fifty per cent of the body weight was lost during this period. This is due in large measure to the loss of appe-These animals showed moderate tetany with episodes of mild clonic convulsions for twelve hours after removal but a majority of the animals survived and no permanent effects were noted. It seems clear from these experiments that a certain degree of acclimatization occurs if exposure is gradual, since death occurs invariably within thirty-six hours following sudden exposure to 25 per cent.

A marked shift in the acid-base equilibrium occurs in both acute and prolonged exposure to carbon dioxide. At 11 per cent the pH of serum is approximately 7.1 and this level is maintained throughout a period of at least seventeen days' exposure even though the total carbon dioxide content of arterial blood may increase to a level of 140 volumes per cent during this period, as base is retained in much larger quantities. Although retention of base is undoubtedly one of the factors involved in acclimatization, it does not appear to explain the phenomenon in its entirety, for the amount retained is not adequate to compensate the respiratory acidosis under the conditions of these experiments.

It is of considerable interest to know whether carbon dioxide in subnarcotic concentrations induces any alteration in oxygen consumption since it is generally agreed that anesthesia reduces the consumption of oxygen to a basal level, largely because of the accompanying muscular relaxation. We were surprised to find that the total oxygen consumption of normal rats is re-

# EFFECT OF CARBON DIOXIDE ON NORMAL HUMAN SUBJECTS

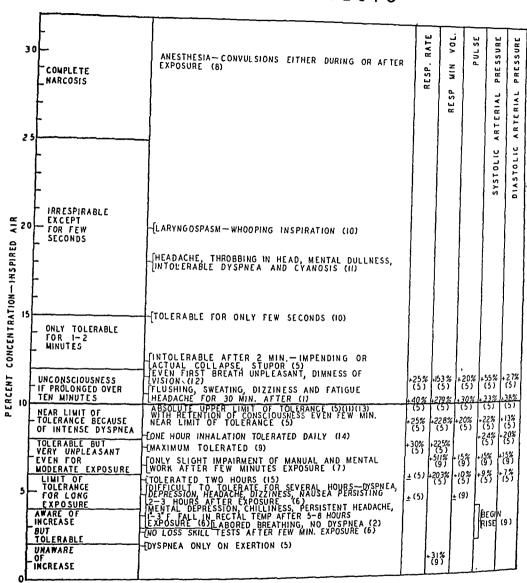


Fig. 1

levels with which one may deal, even inadvertently, during the average anesthesia. As the concentration of carbon dioxide is increased, obviously the most striking sign of narcosis is loss of consciousness. This occurs usually within fifteen minutes when inhaling 10 per cent carbon dioxide. This concentration appears to be a critical level, since further increases result in no further stimulation of respiration, pulse, and

diastolic arterial pressure, although the systolic arterial pressure continues to increase with greater concentrations. These facts support the generally accepted view that concentrations of carbon dioxide above 10 per cent have little place in medicine for their stimulant qualities. Since the evidence is clear-cut concerning a narcotic action of carbon dioxide with concentrations above 10 per cent, the real problem from

marked increase in the duration of pentobarbital anesthesia was noted in animals exposed to 10 and 20 per cent carbon dioxide. With 20 per cent carbon dioxide the duration of anesthesia is nearly doubled.

A 25 per cent prolongation of sleeping time is also observed in rabbits which inspired 20 per cent carbon dioxide after receiving an anesthetic dose of amytal intravenously. Animals which have been acclimatized to carbon dioxide for one week show a similar prolongation of sleeping time with pentobarbital.

Since no resistance is acquired by acclimatization under these circumstances, differing in this respect from that shown with carbon dioxide and cold, it was suggested that carbon dioxide might be acting peripherally to delay the destruction of the barbiturate by the liver rather than to summate with pentobarbital by its narcotic action on the central nervous system. The evidence which has been collected to date seems to support this view and suggests that carbon dioxide acts by diminishing the blood flow through the liver. For example, although sodium nitrite has no effect on the duration of anesthesia with pentobarbital alone, it prevents completely the prolongation of sleeping time induced by carbon dioxide. It is suggested that this action is brought about by overcoming the constriction of the hepatic vessels induced by carbon dioxide, thus increasing the circulation through the liver. Other experiments indicate that the rate of excretion of bromsulfalein is definitely retarded in the rabbit during acute or prolonged exposure to 10 and 15 per cent carbon dioxide, pointing again to a peripheral effect on liver function. If it is assumed that this is the correct interpretation of these results, it seems probable that acclimatization of the vasoconstrictor mechanism to carbon dioxide does not occur, since acclimatization did not modify these results. These experiments need to be repeated both in animals and man, for, if they are confirmed, they may have some appreciable clinical significance, as they could account for some of the unexplained variations noted in the duration of action of the short-acting barbiturates, evipal and pentothal.

Inhalation of carbon dioxide in high concentrations for any length of time is often associated with sequelae which may last for several hours after the event. This is undoubtedly as true in clinical anesthesia as during exposure of the unanesthetized human or animal subject to known concentrations of carbon dioxide. Evidently it takes equally long for the biochemical and . physiologic mechanisms to readjust when the patient returns to breathing air as it did to adjust originally to the high carbon dioxide atmosphere. This means, in effect, that the patient is

probably thrown suddenly into an uncompensated respiratory alkalosis at the termination of anesthesia, especially with the gaseous and volatile agents which allow a rapid recovery of respiratory activity. Such a state occurs because the movement of ions across membranes cannot keep pace with the rate of carbon dioxide diffusion. In animals, following long exposure to carbon dioxide this condition is manifested by tetany and convulsive seizures.

If similar physiologic changes occur in this state, as in ordinary hyperventilation acapnia. then it should also be associated with an arterial hypotension.26 This is possible since a differential in the quantity of cations between blood and tissues should exist even though the blood level of carbon dioxide is not reduced below the normal level. It is the opinion of this author, admittedly without experimental support for this view, that the postoperative "circulatory collapse" commonly seen with cyclopropane, less commonly with other volatile agents such as ether, may be ultimately explained on such a basis.

The clinical significance of some of the experiments which are described here is not clear. It is our opinion, however, that the following factors should be considered seriously by the anesthetist. We are using narcotic concentrations of carbon dioxide regularly during clinical anesthesia. Such concentrations of carbon dioxide may contribute not only to the depth of anesthesia but may possibly delay the detoxication of nonvolatile compounds. Prolonged exposure to such concentrations demands profound. biochemical and physiologic readjustments on the part of the patient. Once these readjustments have been made during anesthesia a certain degree of resistance to further change is acquired. Equally profound adaptations must be made at the termination of anesthesia, and this fact must be recognized as of possible causative significance in any attempt to explain the signs and symptoms of emergence. We should be aware of the facts described here, whether or not we choose to modify our methods of anesthesia so as to eliminate carbon dioxide as a complicating factor.

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duced to 75 per cent of the control value with 11 per cent carbon dioxide, even though the increase in muscular activity due to the hyperpnea must be considerable. The maximum reduction occurs about two and a half to five hours after the initial exposure, and if the animal is allowed to remain in the same concentration of carbon dioxide over a period of twenty-four hours the initial level of oxygen consumption is regained.

No reduction in oxygen consumption occurs following prolonged exposure to 10 per cent carbon dioxide but with 15 and 20 per cent the oxygen consumption is reduced to 80 and 71 per cent of normal, respectively.

Although this depressant effect on metabolism with subnarcotic concentrations of carbon dioxide is equal to, or greater than, that which occurs during complete anesthesia with the ordinary agents, it appears to be short-lived and is soon compensated for during acclimatization. From these results it might be expected that the effect of carbon dioxide on oxidative metabolism is exerted more uniformly on all tissues and is less specific in its action than that produced by depressant drugs.

It is clear from these experiments that sudden exposure to carbon dioxide produces much more profound effects than gradual or prolonged exposure and that normal animals tolerate carbon dioxide in reasonably high concentrations for long periods of time. That this might not be true under conditions of stress from other causes is indicated by the following group of experiments. We have previously reported24 that a large incidence of tetanic seizures and convulsions can be produced with 10 per cent carbon dioxide in hyperpyretic etherized rats and have discussed the possible relationship of carbon dioxide and hyperpyrexia to the so-called "ether convulsions" in man. These findings, coupled with observations by Brown<sup>6</sup> that normal subjects exposed to 5 or 6 per cent carbon dioxide for several hours complained of chilliness and had a fall of 1 to 3 degrees F. in rectal temperature, led us to study the effects of carbon dioxide at low environmental temperatures.23 Since even minor grades of depression with other narcotic drugs reduces the ability of an animal or man to adjust to a cold environment this type of an experiment might serve as a means of revealing the amount of depression produced by subnarcotic concentrations of carbon dioxide. It is also possible that carbon dioxide very specifically depresses the heat regulatory centers.

Results obtained with carbon dioxide and cold were striking. A reversible state of narcosis having certain features of hibernation and anesthesia may be induced and maintained for many hours in the rat or dog by sudden exposure at 5 C. to concentrations of carbon dioxide of 5 per cent or greater. This state is reached after several hours of exposure and is accompanied by a marked fall in body temperature, loss of reflexes, bradycardia, and bradypnea. A somewhat similar state can be induced by exposure to low concentration of oxygen (10 per cent) or high concentration of oxygen (4 atmospheres) at low environmental temperatures, indicating the possible relationship of the phenomenon to a reduction of oxidations in the body.

Previous fasting, previous exposure to 10 per cent oxygen for three weeks, or small doses of depressant drugs render an animal much more susceptible to narcosis under these conditions. Animals which have been previously exposed to cold or to carbon dioxide for several days, or have been fed thyroid in large doses or narcotized several times by the method indicated, become completely resistant to narcosis induced by carbon dioxide and cold. Evidently the critical factor involved is the existing level of metabolism. If the level of metabolism is raised sufficiently, heat production can exceed heat loss. This fact suggests that the narcotic action of carbon dioxide is diffuse rather than being exerted specifically on the heat regulatory centers. Experiments of this type appear to indicate that all concentrations of carbon dioxide above 5 per cent possess some depressant qualities, even though such effects may not be readily detected by ordinary means.

It is of considerable interest in relation to the experiments just discussed that similar studies in man involving carbon dioxide and cold have been undertaken by Case and Haldane<sup>7</sup> for the British Admiralty, in view of conditions which might exist in submarines. Unfortunately, these experiments were of too short duration to determine whether a similar state of narcosis can be induced in man with carbon dioxide and cold. It may be mentioned in passing that their experiments proved that high pressures exaggerate the narcotic action of carbon dioxide, for they have shown that concentrations of this gas of 0.66 per cent at 10 atmospheres (equivalent to a partial pressure of 6.6 per cent at 1 atmosphere) produced unconsciousness in one to five minutes.

One of the questions of interest to the anesthetist concerns the summative narcotic action of carbon dioxide with other anesthetic agents. The evidence is reasonably clear that such summation occurs with volatile agents<sup>25</sup> even with 5 and 10 per cent carbon dioxide. We have undertaken some experiments to determine the effects of carbon dioxide on the toxicity and duration of action of pentobarbital anesthesia in rats. Neither 5, 10, nor 20 per cent carbon dioxide has any significant effect on the toxicity of pentobarbital as indicated by ultimate recovery but a

marked increase in the duration of pentobarbital anesthesia was noted in animals exposed to 10 and 20 per cent carbon dioxide. With 20 per cent carbon dioxide the duration of anesthesia is nearly doubled.

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#### SIX PLANTATIONS TO INCREASE QUININE OUTPUT IN GUATEMALA

Six large plantations in Guatemala now are pushing a program for production of more cinchona bark, needed for quinine to battle malaria among troops fighting in the tropics.

The quinine is obtained from the bark of grown or partly grown cinchona trees. One of the plantations growing these trees is famous El Porvenir, owned by the government of Guatemala, and operated by the United States Foreign Economic Administration under a concession. It is the largest cinchona plantation in the Western Hemisphere.

Private planters are carrying on the work at other

plantations,

Two have contracted to grow 8,000,000 seedlings each.

El Porvenir is more than 60 years old. Some of the other plantations had begun experiments with cinchona as early as 1934. This was seven years befor Pearl Harbor and subsequent events which interrupted the main quinine supply from the Netherlands East Indies at a time when it was needed most.

Today these five plantations are growing increasing quantities of cinchona. The five are known as Finca Helvetia, Finca Panama, Finca Moca, Finca El Zapote, and Finca El Naranjo.

El Porvenir is on the slopes of the extinct volcano, Tajumulco, Guatemala's highest mountain.

plantation was started in 1880, but later encountered competition from the Netherlands East Indies.

El Porvenir has more harvestable cinchona trees than all the other Guatemala plantations put together. But surveys indicate that potentially the others have more trees than El Porvenir. One of the largest plantations is on Fuego Volcano.

Guatemala is in quite a different situation from some of the other American countries with respect to The tree is believed not to be native there. And yet some of the most effective work in development of plantation cinchona in this hemisphere has been done there. On the other hand, the tree is native to Peru, Colombia, Ecuador, and Bo-livia. Much wild cinchona bark is being gathered from these countries. Some of them also are developing plantations.

In line with the inter-American program of cooperation in development of hemisphere resources, specialists from the Foreign Economic Administration are aiding these countries in their cinchons programs. Among the specialists is Keith Cone, chief of the Cinchona Section of the Foreign Economic Administration, who has looked over cinchons operations in much of South and Central America. Release from the Office of the Coordinator of Inter-

American Affairs

#### 1944 EXAMS BY AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The general oral and pathology examinations (Part II) for all candidates will be conducted at Pittsburgh, Pennsylvania, by the entire Board from Wednesday, June 7, through Tuesday, June 13, 1944. The Hotel William Penn in Pittsburgh will be the headquarters for the Board. Formal notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examination dates. Hotel reservations may be made by writing to the hotel.

Candidates for re-examination in Part II must make written application to the Secretary's Office

not later than April 15, 1944.

The Pittsburgh Obstetrical and Gynecological Society will hold an informal subscription dinner meeting at the Hotel William Penn on Saturday evening, June 10, 1944, at 7:00 P.M. Visitors, there for the examinations, are cordially invited to make arrangements to attend. Reservations may be made by writing to Dr. Joseph A. Hepp, Secre-

tary, at 121 University Place, Pittsburgh 13, Pennsylvania. An interesting program is being provided.
The Office of the Surgeon General (U.S. Army)

has issued instructions that men in service eligible for Board examinations be encouraged to apply and that they may request orders to Detached Duty for the purpose of taking these examinations whenever possible.

Candidates in military or naval service are requested to keep the Secretary's Office informed of

any change in address.

Deferment without time penalty under a waiver of our published regulations applying to civilian candidates, will be granted if a candidate in service finds it impossible to proceed with the examinations

of the Board. Applications are now being received for the 1945 examinations. For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

#### PROGRESS IN THE STUDY OF EXPERIMENTAL ENDOCARDITIS

WARD J. MACNEAL, M.D., MARTHA JANE SPENCE, M.A., and ANNE BLEVINS, R.N., New York City

BY THE relatively simple procedure of re-peated intravenous injection of large amounts of culture of Streptococcus viridans, and without other injury to the valves, it has been possible to cause endocardial vegetations in various small animals such as rabbits, rats, and mice. Rabbits, because of their conveniently large ear veins, have been used for the most part. Photographs of the gross lesions and of microscopic sections have shown the essential resemblance of the vegetations to those of the human disease.1 The experimental disease obviously offers an exceptional opportunity for study of the sequence of events in the development of the characteristic lesions.

Among the early changes<sup>2</sup> following intravenous injection of the streptococci is the widespread, practically general, phagocytosis of these bacteria, in part by the wandering white cells of the blood, but especially by the vascular endothelium throughout the body. The phagocytosis by endothelium may be readily seen in the liver, spleen, pulmonary capillaries and arterioles, small vessels of the myocardium, and, of particular interest for the present discussion, in the endothelial lining of the chambers of the heart and of the valve leaflets. In a favorable section of the heart, phagocytosed cocci may be found in the endocardium of every microscopic field of the oil immersion objective. In most of the endocardium this phenomenon of phagocytosis obviously results in destruction of the microbes without serious or even recognizable persistent change in the endocardium. In some places, however, the endothelial phagocytic cells become swollen and may even disintegrate, and here their injury sometimes initiates a local thrombosis. This serious alteration occurs more readily at those places where the swollen endothelial cells are subjected to the further insult of physical contact and strong pressure against their fellows along the lines of contact of the valve leaflets during closure—namely, on the auricular surfaces of the mitral leaflets and the ventricular surfaces of the aortic leaflets near their free margins. Once the process of local thrombosis has been started, the bacteria caught in the meshes of the clot find particularly favorable conditions for survival and multiplication, and by their massive growth produce enough toxic substances to keep phagocytic cells at a distance and to induce further progressive deposition of fibrin. The subjacent living substance of the valve leaflet becomes enormously swollen by edema, by infiltration with wandering cells, and eventually by proliferation of endothelial and fibroblastic elements.

In the ascending aorta, phagocytosis of the cocci by the endothelium is followed, in some locations, by abundant proliferation of the bacteria to form mycotic plaques, beneath which there is shallow necrosis of the aortic wall with more extensive edema beyond it. Lesions of this type evidently tend to heal, leaving intimal scars in the aortic arch.

The rabbits examined in the early stages of the disease following intravenous inoculation show also interesting lesions in the endocardium of the right ventricle of the heart, in and on the papillary muscles and tendinous cords of both ventricles, in the coronary branches, and in the myocardial capillaries, and also in the muscle. These changes can receive only passing mention at this time. It is also necessary to neglect at this time the later changes seen in other organs and tissues outside the heart in order to consider the further progress of the endocardial lesions on the mitral and the aortic valves, lesions which tend to develop in a progressive manner to bring about the eventual death of the experimental animal

After the injury to the valve has induced the deposition of fibrin on its surface, the bacteria growing in this clot present variable relationships. In some vegetations there are large bacterial colonies distributed throughout the cell-free fibrin and extending to the free surfaces of the clot, in actual contact with the circulating blood. Here it seems that the blood plasma has offered little, if any, opposition to the bacteria, permitting them to multiply on the exposed surface of the vegetation and to escape continually from this surface into the general circulation. In other vegetations, however, one finds evidence of more antagonism. Sometimes the colonies of streptococci are found only in the deep layers of fibrin, and the superficial layer of the vegetation consists of fibrin quite free from visible bacteria. In these lesions

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State of New York, Buffalo, May 4, 1943.
From the Department of Bacteriology, New York Post-Graduate Medical School and Hospital, Columbia Univer-

Aided in part by a grant from the Committee on Thera-peutic Research of the Council on Pharmacy and Chemistry, American Medical Association, and by a grant from the United Hospital Fund, New York City,

something evidently operates to prevent the growth of the streptococci in the more superficial parts of the vegetation, and this something is evidently carried in the blood plasma which bathes the vegetation. In such a vegetation the deeply buried bacterial colonies no longer shed the streptococci into the blood stream. This picture would therefore seem to represent a step in the direction of healing.

In some vegetations the deep bacterial colonies undergo a curious degeneration, so that the individual cocci stain poorly or not at all. Many of them appear to have been devitalized. In the poorly staining bacterial masses there may remain a few well-stained cocci, or one may recognize well-stained actively growing colonies in the fibrin at a short distance from the dying bacterial masses. The explanation of this behavior is not understood. Occasionally one sees a bacterial colony with disintegrated center and a surrounding cortex of well-stained, actively growing bacteria, and in some instances the vegetation presents a curious lamination with successive layers of fibrin, one layer containing abundant colonies and another relatively free from bacteria. This appearance suggests that the bacterial proliferation is at times seriously inhibited and that bacterial destruction is accomplished by the action of something in the blood plasma in conjunction with products of the bacteria themselves, bringing about an actual lysis of the streptococci.

Other changes which indicate local healing include actual tissue repair. The superficial bacteria-free layer of fibrin provides a framework over which the multiplying endothelial cells spread to form a smooth covering while endothelial cells and fibroblasts grow into the fibrin and even approach the disintegrating bacterial colonies in the underlying layers. Eventually the incarcerated bacterial colonies may be invaded and destroyed by phagocytic cells and the vegetation finally replaced by fibrous scar. The conditions which bring about such healing are not clearly understood and cannot be controlled at the present time. Possibly some of the various therapeutic agents may play a part in the favorable outcome, but this is still rather uncertain.

Among control animals given repeated intravenous inoculations without other treatment, there are some which are entirely free from visible endocardial vegetations even after many weeks. Why these few animals resist the infection we do not know. On the other hand, some rabbits succumb very quickly, even within a week. These are usually less vigorous individuals.

The technical methods for recognition of

vegetations on the cardiac valves of the living rabbit3 leave something to be desired. Progressive loss of weight, persistent muscular weakness, and persistently positive blood culture, for more than a week after inoculations have been discontinued, are strong evidence favoring a diagnosis of bacterial lesions on the valves. Auscultation of the heart while its rate is care-· fully altered by pressure on the neck of the rabbit sometimes permits the recognition of changes in the heart sounds which indicate defects of the valves, and one may even diagnose mitral stenosis and regurgitation in this way. Very rarely, one may detect by palpation an abnormally resistant mass in the region of the heart, which is found at necropsy to be a very large endocardial vegetation. These physical signs ordinarily become clearly evident only a few days before death of the animal. They sometimes permit a fairly confident prediction of the necropsy findings.

The streptococci found in blood cultures in human endocarditis are variable in nature. One may easily recognize three groups, the salivarius type, the anhemolytic (saprophyticus) type, and the enterococcus type, but in addition there are commonly found atypical strains that are difficult to classify. In their behavior toward therapeutic agents these various culture strains are far from uniform. Some of the enterococcus strains are susceptible to lysis by bacteriophages in the test tube. So far we have not been able to obtain effective bacteriophages for the salivarius strains. The streptococci are also remarkably variable in their susceptibility to chemical agents in the culture medium and it is recommended that therapeutic agents be tested against the cultures in order to select those which may appear most promising for use in therapy.

Our experimental therapy of the disease in rabbits has been discouraging. Preliminary bacterial vaccination has afforded no protection against endocarditis. Prophylactic and therapeutic use of strong agglutinating rabbit serum has seemed to hasten the development of large vegetations in the inoculated animals. Large doses of sulfonamides have been equally disappointing. On the other hand, there have been some indications of a favorable influence upon the experimental disease in a few instances, but the studies are still in an uncertain preliminary stage and may merely serve to encourage false hopes.

The study of experimental endocarditis offers an opportunity for progress toward a better understanding of the nature of the human disease. The struggle toward eventual prevention and successful therapy promises to be laborious and slow and may even prove to be entirely futile.

Nevertheless, the opportunity to engage in such studies should not be neglected.\*

\*Since the presentation of this paper in May, 1943, further studies, by MacNeal, Blevins, Poindexter, and Slavkin have shown that the streptococci of the enterococcus types, susceptible to lysis by bacteriophages, are ordinarily resistant to penicillin, while the salivarius strains, which are resistant to bacteriophages, are usually very suspectible to the bacteriostatic action of penicillin. In experimental rabbits infected with the enterococcus strains and treated with intravenous injections of bacteriophage, local arrest and healing of the lesions and, in some instances, complete recovery of the rabbits have been observed. Similarly, in animals infected with the salivarius type of

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streptococcus, arrest and healing and even complete recovery of the rabbit have followed the use of penicillin. In human patients with endocarditis due to the salivarius type of Str viridans satisfactory arrest of the disease has been observed following the use of penicillin in conjunction with other commonly used therapeutic and supportive measures.

#### MARIHUANA

In recent years there have been many newspaper accounts of the great danger threatening America from marihuana (hemp) addiction. One brutal murder by two young women was said to be the result of their smoking of marihuana. Other lurid accounts have told of the prostitution of school children through selling them marihuana cigarettes. Now it seems that such tales have had no basis in fact. An editorial in The Military Surgeon entitled "The Marihuana Bugaboo" contains the following statement:

"It is the writer's considered opinion that the smoking of the leaves, flowers, and seeds of Cannabis salira is no more harmful than the smoking of tobacco, or mullein, or sumac leaves, or any of the other plants that have been used for the purpose. There appears to be the occasional individual who, having smoked this plant, prefers its mild exhilara-tion to that of tobacco, but they are most exceptional. Ordinarily, after the first curiosity is satisfied, tobacco is much preferred.

"It is further considered that the legislation in relation to maribuana was ill-advised, that it branded as a menace and a crime a matter of trivial importance. It is understood that this legislation is, furthermore, a serious detriment to the development of a hemp fibre industry in this country. Finally, it is hoped that no witch hunt will be instituted in the military services over a problem that does not ex-

"Probably most physicians will be as surprised as the writer that America faces no menace from marihuana. It is a great source of gratification that this is so and that there is no danger of the wrecking of children's lives through a too lively curiosity in the smoking of hemp."—F. C. S.—Editorial, Phila. Med., January 8, 1944.

We, too, share the relief expressed in Editor Smith's last paragraph if the editor of The Military Surgeon is right, for within recent memory there was some alarm in Wilmington over the alleged peddling of "reefers," or "mary janes," to the pupils of our senior and junior high schools.

However, it is neither wise nor scientific to go all out for a new thesis, unless it be most thoroughly documented. We still retain the fear that some of the many medicolegal cases charged up to marihuana were bona fide. Davidson (Synopsis of Materia Medica, Toxicology and Pharmacology, Second Edi-tion, 1942, page 260) states, "It is important to recognize that both the prolonged use by habitués, and the single large dose taken by a novice may cause criminal, maniacal acts. Moreover, even small quantities can destroy the will power and the ability to connect and control thoughts and actions, thus releasing all vicious inhibitions." So, till the article in The Military Surgeon can find corroboration, it may be well to assume that the final word on this subject has not yet been said.—Editorial in the Delaware State M.J.

#### COMMITTEE ON ALCOHOLISM ESTABLISHED BY RESEARCH COUNCIL

The appointment of a new committee on alcoholism by the Research Council on Problems of Alcohol is on the Research Council on Problems of Alcoholis one of the results of the recent reorganization of the group. Members of the committee are Drs. Lawrence S. Kubie and Thomas A. C. Rennie, New York; Mesrop A. Tarumianz, Farnhurst, Delaware; Edward H. L. Corwin, Ph.D., New York; Leonard V. Harrison, LL.D., New York; Francis T. Chambers, Jr., Philadelphia; Anna Kempshall, New York; Hunter Miller, Richmond; Herbert Taylor and William Wilson, New York. Under the reorganization the research council aimed to increase reorganization the research council aimed to increase its representatives on its board of directors on a re-gional basis. Thus far some members have been named for the eastern district, Canada, southern

district, north central district, and the Pacific Coast district; however, these appointments are not complete. Another new feature is the appointment of an executive committee of the board of directors to give special attention to the business and financial affairs of the council. An executive committee of seven members of the scientific committee has been appointed to give closer attention to rehas been appointed to give closer attention to research on the treatment of alcoholism: Dr. Karl M. Bowman, San Francisco; Dr. Frank J. Curran, New York; Lawrence K. Frank, Brooklyn; Dr. Harold E. Himwich, Albany; Elvin M. Jellinek, Sc.D., New Haven, Connecticut; and Thorsten Sellin, Ph.D., Philadelphia.—J.A.M.A., Feb. 19.

#### FAT AND VITAMIN A ABSORPTION IN SPRUE

DAVID ADLERSBERG, M.D., New York City

THE sprue syndrome is characterized by the I following features:

Impairment of intestinal fat absorption. The bulky feces are loaded with split fat in the form of globules and needle-shaped crystals of fatty soaps and fatty acids in the absence of an excess of neutral fat and striated muscle fibers.

Restoration of normal fat absorption and disappearance of the excess of split fat from the stools by specific "sprue therapy."\*

3. Absence of gross pathologic changes in the intestinal tract if postmortem changes have been prevented, thus suggesting a disturbed

function of the intestinal wall to be the underlying cause.

These characteristics differentiate the sprue syndrome from other pathologic conditions which may resemble sprue—e.g., steatorrhea in diseases of the pancreas. Owing to the absence of enzymes in pancreatic steatorrhea the fat is not split, large amounts of neutral fat and striated muscle fibers are found in the stools, and specific treatment, effective in sprue, fails to restore normal fat absorption. It is our belief that the term "sprue syndrome" is the best designation for undetermined impairment of fat absorption as it is found in tropical and nontropical sprue and in celiac diseases. It is broader than Thaysen's1 term "idiopathic steatorrhea," which stresses only one feature of the disease—the loss of fats in the feces. Cases of steatorrhea of a known origin-due, for instance, to pancreatic disease, lymphosarcoma of the small intestine, tuberculosis of the mesenteric glands, etc.—should be strictly separated from the "idiopathic steatorrhea" of the sprue syndrome.

The other symptoms of sprue are less typical. Hypocalcemia, tetany, decalcification of bones and osteoporosis, retardation of growth, anemia, hypoproteinemia, stomatitis, and glossitis, radiographic changes of the small intestine, and the various vitamin deficiencies may be present. Typical cases of sprue occur without one or more of these conditions, which are only secondary in nature and are caused by the impaired intestinal absorption. Thus, the hypocalcemia is the result of calcium losses caused by the combination of calcium with the unabsorbed

fatty soaps; the deficiency of fat-soluble vitamins is directly associated with the abnormal fat absorption.

The mechanism and nature of the impaired fat absorption in sprue is still unknown, although there are indications that tropical as well as nontropical sprue and celiac disease are caused by the deficiency of some essential dietary factor or factors. May et al.2 concluded on the basis of very careful studies performed in cases of celiac disease that the defect of absorption is located directly in the intestinal mucosa, since other essential factors like motility, emulsification, etc., were corrected and caused no improvement of absorption. Hurst<sup>3</sup> suggested that characteristic features of the sprue syndrome are the result of paralysis of the muscularis mucosae, which would lead to the loss of the pumping action of the villi, by means of which fat is conveyed from lacteal radicles of the villi into larger lacteals. Paralysis of the muscularis mucosae may be secondary to the loss of the normal stimulant of Meissner's plexus or to the effect of vitamin deficiency or some toxemia of the plexus. One must realize that our knowledge of the normal, and particularly of the abnormal, intestinal absorption is very limited. Despite the work of Verzar' and others, many aspects of the chemical and neuromuscular controls are obscure, as are the pathologic changes of the plexus of Meissner.5

In typical cases of sprue the clinical picture, the usual laboratory findings (blood picture, stool analysis), the radioscopic and radiographic examination of the small intestine, lead to a correct diagnosis. In milder and borderline cases the differentiation between sprue and inflammatory disease of the small intestine (jejuno-ileitis) may be difficult both clinically and radiographically.6 In the latter disease diarrhea and anemia are found and the feces may contain excessive fatty soaps and acids, possibly as a result of increased motility.7 In these cases the clinician is looking for a "function test" of intestinal absorption.

For the past few years the flat blood-sugar curve after the ingestion of glucose has been considered a valuable aid in the diagnosis of the sprue syndrome. Despite its practical value two objections can be raised against it:

1. The character of the blood-sugar curve depends to a great extent on the diet of the individual; high fat, low carbohydrate diet raises, and low fat, high carbohydrate diet

irreversible and refractory to treatment (Hanes18).

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 4, 1943.

From the Medical Services, Nutrition Clinic, and Department of Chemistry of the Laboratories, Mount Sinai Hospital

\* There are rare instances in which the morbid process is

flattens the curve. A patient with steatorrhea is comparable with a normal subject taking a low fat, high carbohydrate diet (Hurst<sup>2</sup>).

2. The flat blood-sugar curve does not gage the essential disturbance of sprue, which certainly is the impaired absorption of fat and fat-soluble vitamins.

It was for these reasons that for clinical studies in sprue the fat tolerance test and the vitamin A tolerance test were adopted, the latter as a representative of the fat-soluble vitamins. As has been described previously, 2, these two tests represent a practical method for study of the intestinal absorption for clinical purposes.

#### Method

Fat Tolerance Test.—As a standard procedure the fat tolerance test recommended by Nissen<sup>10</sup> and modified by Kann and Sobotka<sup>11</sup> was adopted. The test determines the total serum lipids at various intervals before and after ingestion of 1 Gm. of butter fat (given as heavy cream) per Kg. of body weight. The maximum rise of the total lipids in the blood occurs in the fourth or fifth hour after ingestion, depending on the position and activity of the subject; under conditions of bed rest the maximum elevation is found in the fourth hour. We were able to corroborate these findings. The procedure is as follows:

- 1. Take a fasting blood specimen (10-15 cc.).
- 2. Give a fat tolerance test meal: one cup of tea, one slice of white bread, and 1.2 cc. of heavy cream (40 per cent fat content) per pound of body weight.
- 3. Take blood specimen four hours after test meal.
  - 4. Determine total lipids in serum.

Vitomin A Tolerance Test.—This test consists of the determination of the Vitamin A content of the serum of the fasting individual, and also four hours after the ingestion of a test dose of vitamin A. Various amounts (1.5-15 cc.) of percomorph oil (1 cc. = 60,000 I.U. of vitamin A) were used for this purpose, but most tests were done with 3 cc. of percomorph oil (180,000 I.U. of vitamin A). The procedure is as follows:

- 1. Draw fasting blood specimen (20 to 25 cc.).
- 2. Give vitamin A tolerance test meal: one cup of tea, one slice of white bread, and 1.5 to 15 cc. of percomorph oil.
- 3. Draw blood specimen four hours after test meal.
- 4. Determine vitamin A and carotene content of serum (Carr-Price reaction, using the photoelectric colorimeter) by the method of Dann and Evelyn.1:

TABLE 1.—FAT TOLERANCE TEST IN AFFBRILE CONTROLS, ACTIVE AND INACTIVE SPRUE

	Total Lipids (Mg. Per	in Serum Cent)			
		After	Increase		
Case	Fasting	4 Hours	(Percentage)		
	Con	trols			
137	360	450	25		
139	554	840	51		
	453	1009	120		
143	400				
144	377	499	32		
145	277	636	129		
146	729	929	27		
147	478	609	27		
Mean	461 (±57)*	710 (±82)*	59		
	Activ	e Sprue			
101	524	544	4		
104	437	443	4 0		
104	363	365	ň		
109		185	0 12		
	165	300	12		
136	302		ó		
149	568	590	4		
Mean	393 (±61)	405 (≈62)	3		
Inactive Sprue					
101	601	793	32		
106	272	412	51		
134	314	551	75		
104	014				
Mean	396 (±103)	585 (≈111)	53		
	220 ( 200)				

\* All = figures given in parentheses in Tables 1-5 are Standard Deviation of the Mean (SDM).

#### Fat Tolerance Test and Vitamin A Tolerance Test in Sprue

The results of the fat tolerance test in controls, typical cases of sprue in the active stage, and typical cases of sprue during remission, are presented in Table 1. The controls were patients convalescing from various diseases, who had been afebrile for at least seven to ten days prior to the performance of the test. For the second group 5 typical sprue patients with marked steatorrhea, macrocytic anemia, hypocalcemia, etc., were selected. The third group also comprises 3 typical sprue patients who showed marked improvement after a prolonged period of specific treatment (diet, injections of large doses of liver extract, and vitamins) and were in remission at the time of examination.

The control group shows an increase of the total lipids of the serum of 59 per cent four hours after the fat tolerance meal. In the group of active sprue cases the total lipids of the serum remain practically unchanged four hours after the fat tolerance meal, the average being only 3 per cent. These results illustrate the inability of active sprue patients to absorb fat. In the group of inactive sprue cases the increase in the percentage of the total lipids of the serum is 53 per cent, after the same time of four hours.

During a remission in sprue the fat absorption is fairly normal.

The results of the vitamin A tolerance test in 9 control cases and 2 cases of active sprue are

TABLE 2.—VITAMIN A TOLERANCE TEST IN AFEBRILE CONTROLS AND ACTIVE SPRUE

===				
		Vitamin A	in Serum	
	Vitamin A	(I,U,/)	100 ML)	
	Given	<b>(,</b>	After	Increase
Саяе	(I.U.)	Fasting	4 Hours	(Percentage)
	\ <b></b> ,	-		(rercentage)
		Control	8	
110	600,000	57	248	335
114	600,000	41	179	336
114	90,000	31	59	40
115	96,000	65	151	132
116	120,000	61	79	29
117	180,000	š9	65	67
120	180,000	99	162	65
122	180,000	118	123	
123	180,000	83	125	-4
125	180,000	82		<u>51</u>
127	180,000		112	37
121	7901000	98	162	65
Afann a	flast 7 cases			<del></del>
Meano	i inst / cases	83 ( ± :	l0)*114 (±1	l2)* 41
MIGHTO	f carotene of			
	cases			
Gam	ma per cent	/83 ( ±	:5)//82 (±5	5)/ /~1/
	Two (	Cases of Act	ive Sprue	
101	90.000	41	38	-7
104	90,000	40	30	-25
				-20

summarized in Table 2. Ingestion of 600,000 I.U. of vitamin A in controls raises the vitamin A level in the serum by approximately 300 per cent, in four hours. In most of the tests smaller amounts (90,000-180,000 I.U.) were used and the average increase of the vitamin A content of the serum is 41 per cent after four hours. The carotene content of the serum remains unchanged. In contrast to the behavior of the controls, the 2 sprue cases present no elevation of the vitamin A content after ingestion of 90,000 I.U. of vitamin A. The vitamin A tolerance test would prove the failure of absorption of vitamin A in active sprue, if confirmed in more cases, paralleling the inability to absorb fat in the fat tolerance test.\*

#### Fat Tolerance Test and Vitamin A Tolerance Test in Jejuno-Ileitis

Five cases of extensive jejuno-ileitis were studied. Most of them had been chronic cases of diarrhea for several years, and none for less than a few months. The accompanying anemia was microcytic. Radioscopic and radiographic examination revealed extensive involvement, rigidity, and narrowing ("string symptom") of wide areas of the small intestine. There is a 65 per cent increase of the total lipids of the serum four hours after the fat tolerance meal (see Table 3). The severest case of the group is No. 112 but even in this case a moderate fat absorption takes place, with elevation of the total lipids of the serum from 499 to 602 mg. per cent—i.e., 20 per cent.

The administration of 90,000-180,000 I.U.

TABLE 3 .- FAT TOLERANCE TEST IN JEJUNO-ILEITIS

	Total Lipids (Mg. Per	in Serum Cent)	
Саве	Fasting	After 4 Hours	Increase (Percentage)
105	290	557	92
105	540	1090	102
107	337	594	76
111	338	538	59
112	499	602	20
148	259	357	38
Mean	377 (±47)	623 (±100)	65

of vitamin A raises the vitamin A level of the serum in these cases from an average of 63 I.U. per cent to 94 I.U. per cent four hours after the vitamin A test meal, the increase being 52 per cent (see Table 4). Increasing the dose to 600,000 I.U. raises the vitamin A content of the serum in these cases to about 200 per cent.

Thus the results of the vitamin A tolerance test again parallel those of the fat tolerance test. Even in extensive jejuno-ileitis, absorption of fat and vitamin A may be satisfactory, in sharp contrast to active sprue.

#### Effect of Lecithin on Fat and Vitamin A Tolerance Tests

The studies of lipotropic substances resulted in better understanding of the role of choline and lecithin in the diet. Choline is considered a member of the vitamin B complex, dand lecithin as a source of choline may contribute an essential dietary factor. The lipotropic effects of lecithin and its emulsifying capacity suggested a study of its effects upon the intestinal absorption of fat and vitamin A in normal individuals and in cases of sprue.

A palatable form had to be found in which lecithin could be administered to healthy individuals and to patients. Various purified lecithin products were tried out in combination with alcohol, nuts, figs, preserves and cream cheese, in chocolate-covered candies and pastries, and also as milk and chocolate shakes. With all these ingredients only small amounts of pure lecithin could be effectively camouflaged (1 to 5 Gm.);

TABLE 4.-VITAMIN A TOLERANCE TEST IN JEJUNO-ILEITIS

Case 107 107 111 112 116 116	Vitamin A Given (1.U.) 600,000 90,000 600,000 120,000 180,000	Vitamin (I.U./I Fasting 54 56 61 48 61 72	A in Serum (00 Ml.) After 4 Hours 176 113 228 96 79 90	Increase (Percentage) 226 102 274 100 29 25
Mean	(90,000- 180,000) (600,000)	::	:_	52 200

<sup>\*</sup> It is of interest that hepatic damage (acute yellow atrophy, hepatitis) causes marked impairment of intestinal absorption of vitamin A and that this alteration is reversible.

TABLE 5 .- EFFECT OF LECITHIN ON FAT TOLERANCE TEST

	Fat-Tolerar Total Lipids (Mg. Per		at Lecithin)	Fat-Toler Total Lipids (Mg. Per	Cent)	Lecithin)
Case	Fasting	After 4 Hours	Increase (Percentage)	Fasting	After 4 Hours	Increase (Percentage
	T. Sound	4 Moule	Controls	* months	2 40418	(1 creentage
137	360	450	25	397	556	42
139	554	840	51	491	886	จัก
144	478	609	51 27	578	1039	79
146	729	929	27	736	1132	54
147	377	499	32	349	664	90 79 54 90
			-			
Mean	500 (≠67)	665 (±94)	32	510 (±69)	855 (±109)	71
			Three Cases of Sp	orue		
101	524	544	4	393	489	24
136	302	300	-1	241	337	31
149	568	590	4	610	774	24 . 31 26
Mean	465 ( ±82)	478 (±90)	2	315 (±219)	533 ( ±128)	27

when larger amounts (10 to 20 Gm.) were given the disagreeable taste could not be overcome. This resulted in gastric discomfort, epigastric pressure, nausea, and occasional vomiting. Better results were obtained with commercial lecithin, a mixture of soybean phosphatides containing approximately 20 per cent of lecithin. This substance mixed with preserves or fruit jellies, or incorporated in milk shakes, was very well tolerated by normal subjects and by most patients. A convenient form is a spread to be used on crackers or cookies. Thus, amounts up to 10-20 Gm. of commercial lecithin could be easily administered in a single dose, to make daily totals of 30-70 Gm. The innocuousness of comparatively large amounts of commercial lecithin was proved in these studies.8 Even with maximal doses of pure and commercial preparations, only a moderate elevation of the serum phosphorus was occasionally observed, associated with a moderate diminution of calcium, without any striking alteration of the phosphoruscalcium ratio. In a few instances of hypercholesterolemia a striking decrease of the serum cholesterol was observed after prolonged lecithin administration.17

The effect of 10 to 15 Gm. of commercial lecithin on the fat tolerance test is presented in Table 5. The average elevation of the total lipids in serum rises in the five controls from 32 to 71 per cent, and in three cases of active sprue from 2 to 27 per cent, thus indicating increased fat absorption. Blank experiments with 10 Gm. of lecithin but without the cream meal showed practically no increase of the blood lipids.

The results of the vitamin A tolerance tests parallel those of the fat tolerance test. Two tests were performed in these cases within an interval of a few days, one test being made without lecithin and one with the addition of 9-12 Gm. of commercial lecithin. In the tests with lecithin the elevation is markedly en-

hanced, the average elevation of the vitamin A level in the blood rising from 41 per cent when lecithin was not given, to 212 per cent when it was added. The data on this series will be presented in another paper, and therefore are not repeated here. Control tests performed with defatted commercial lecithin proved that the increases observed with commercial lecithin cannot be attributed to its content of soya oil. However, the question of whether the observed effects on intestinal absorption are caused exclusively by its lecithin content is unanswered, and the effects of cephalin and inositol have to be studied. The mobilization of fat and vitamin A in the depots (liver) by the lipotropic action of lecithin is probably of lesser importance.

These observations suggested the addition of lecithin to the dietary regimen of sprue and sprue-like conditions. 62,6 Amounts of 5-20 Gm. of commercial lecithin daily have been used. In a group of cases a favorable influence on the frequency and consistency of the stools was observed with markedly diminished elimination of fatty soaps and fatty acids as seen on microscopic examination of the feces. Larger amounts, over 15 Gm., were not well tolerated, possibly because of the effect of the soy bean oil upon intestinal motility. Under no circumstances is the feeding of lecithin apt to replace the usual sprue therapy, which consists of a high protein, low fat diet and large amounts of parenteral liver extract and vitamins; however, it may supplement this therapy. The effect of small and large amounts of lecithin on the fat content of the stools in normal subjects and in cases of disturbed fat absorption, by chemical analysis, remains to be studied.

#### Summary

The fat tolerance test and the vitamin A

<sup>\*</sup>The approximate composition is: lecithin 20 per cent. cephalin 20 per cent, oil 30 per cent, carbohydrates 10 per cent, inositol and allied compounds 15 per cent, phytosterois 2 per cent.

tolerance test are clinical "function tests" of the absorptive capacity of the intestinal tract for fat and the fat-soluble vitamin A. Active sprue is characterized by a failure of absorption which manifests itself in complete lack of elevation of the lipids or of the vitamin A content of the serum, after the ingestion of a standard dose of butter fat or vitamin A, respectively. During a remission, satisfactory fat and vitamin A absorption are found.

In contrast to sprue, cases of extensive granulomatous jejuno-ileitis show a considerable fat and vitamin A absorption in the tests. Apparently, in jejuno-ileitis small areas of normal intestinal wall and possibly even the diseased areas are able to absorb fat and vitamin A, whereas in sprue there is a puzzling generalized inhibition of absorption in each individual cell of the intestine.

Addition of lecithin enhances the elevation of the total lipids of the serum in the fat tolerance test, and of the vitamin A content of the serum in the vitamin A tolerance test. This effect is due to increased intestinal absorption and, probably to a lesser extent, to mobilization of deposits in the liver.

The use of moderate amounts of lecithin in the diet of the sprue syndrome (tropical and nontropical sprue, celiac disease) is suggestive.

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#### Discussion

Henry A. Rafsky, M.D., New York City-Dr. Adlersberg's paper is of especial interest to me. The role which intestinal absorption plays in nutritional problems has been recognized. has also been known that an impaired intestinal mucosa can produce an avitaminosis even though the patient has been on an adequate vitamin diet. It does not make much difference whether the mucosa of the small intestine is affected by a pathologic process or whether a change takes place in the mucous membrane as the result of a physiclogic atrophy as is witnessed in the aged. Dr. Newman and I have been studying the question of saturation of vitamins in the aged at the Hospital and Home of the Daughters of Jacob. We have found that some of these individuals who were observed needed as much as 900 mg. of vitamin C and others 90 mg. of thiamine chloride before they reached saturation. In other words, due to the physiologic atrophy of the intestinal mucosa in the aged there is a diminution of intestinal absorption and the results are similar to what Dr. Adlersberg found with vitamin A in his cases of sprue. In regard to the difference in the findings in cases of ileitis and sprue, here again the problem resolves itself as to whether the lesion is confined to the mucosa and how much of the affection involves the other coats of the small intestines. In sprue evidently the lesion is confined mainly to the mucosa. In ileitis, while the mucous membrane is involved, the other coats of the small intestines are likewise affected. In fact, the involvement of the latter with the resultant cicatricial contraction and narrowing of the lumen produces the x-ray evidence of this disease, as well as the palpable mass. Clinically, however, for reasons which cannot be gone into at the present time, it must be borne in mind that an adequate supply of vitamins and minerals is also essential in treating cases of ileitis.

#### OLD FRIEND

An Army prospect taking his physical examination was asked by the doctor if he could read the fourth line on the eye chart. "Read it?" exclaimed the prospect. "Why, I know the guy personally. He played right guard for Fordham last fall."—Rotary Hub

#### SURGICAL ASPECTS OF GASTRIC ULCER

JOHN D. STEWART, M.D., and FLOYD M. ZARDFEL, M.D., Buffalo

THE subject of gastric ulcer is not so re-I mote as one might suppose from the problems of war medicine that are uppermost in the minds of most of us today. Evidence has recently been summarized which shows a sharp increase in peptic ulcer since the start of the war, both here and in European countries.1 The increase is demonstrable in both the military and civilian populations and appears to be greater than can be attributed solely to improvements in diagnosis, though closer scrutiny of manpower is undoubtedly a factor. Explanations offered for this wartime increase in peptic ulcer are mental and physical strain, irregularities in dietary habits, nutritional deficits, and increased consumption of tobacco.

The pathogenesis of peptic ulcer in its fundamental aspects remains obscure, although clinical and experimental studies have established the importance of what may be called contributory factors. The individual who has a tendency to form peptic ulcer must regard himself as suffering from a permanent handicap. Recurrence or flare-up may result at any time from environmental stress, relaxation of dietary care, or for unaccountable reasons. The erratic course of the disease must be kept in mind by the internist and surgeon in evaluating any method of treatment. Prolonged observations should be made of the patient's condition following surgical treatment, and it would be well if the surgeon recorded the results of operation in terms of five- or ten-year periods as in the management of cancer.2 Whenever possible the handling of cases of peptic ulcer should be the responsibility of a gastro-enterologic team, including internist, surgeon, radiologist, and gastroscopist. Such combined study of the patient's course and analysis of response to treatment will result in healthier patients and will facilitate clinical research.

The surgical treatment of gastric ulcer gradually has undergone a considerable degree of standardization. Earlier procedures such as excision or cauterization of the ulcer with or without gastro-enterostomy, pyloroplasty various types, sleeve resection, excision of pylorus and antrum, and gastric resection without removal of the pylorus have given place to subtotal gastric resection in which three-quarters

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943. From the Department of Surgery, University of Buffalo Medical School, and the Edward J. Meyer Memorial Hospi-tal, Buffalo

of the stomach and all of the pylorus are excised Whether or not Edkins was right in his supposition that the mucosa of the pylorus and antrum elaborates a hormone which stimulates the secretion of acid, there is considerable clinical evidence supporting the importance of removing the pyloric mucosa completely in subtotal gastric resection for ulcer. Excision of the pylorus and two-thirds to three-quarters of the stomach reduces or abolishes acid secretion and diminishes the amount of mucosa involved in gastritis.

A further technical goal is a rapidly emptying stoma. The operation which enables us to attain these objectives most satisfactorily is the subtotal resection with anterocolic Holmeister gastrojejunostomy. Jejunojejunostomy is not performed. The incision selected depends on whether the stomach is high or low with respect to the costal margin, whether the ulcer with its surrounding inflammatory reaction is in the proximal or distal half of the stomach, and whether the patient's abdomen is long and narrow or short and broad. In about half the cases we use a left subcostal incision and in the rest a left paramedian vertical incision with lateral retraction of the rectus muscle. Ether and oxygen administered in a closed system through an intratracheal catheter and supplemented by infiltration of procaine into the properitoneal tissues about the wound is our choice for anesthesia.

In an occasional case we have found the transdiaphragmatic approach useful in subtotal or total gastric resection for large, high penetrating ulcers. The induration and inflammatory infiltration about a high posterior wall ulcer, whether benign or neoplastic, may involve the cardiac end of the stomach. Anastomosis of jejunum to esophagus or remnants of the fundus by laparotomy may be technically difficult and unsafe under such circumstances. A much better exposure can be obtained, particularly if the diaphragm occupies a high position in relation to the costal margins, by entering the thorax through the bed of the ninth rib on the left, sectioning the pulmonary ligament, and incising the left dome of the diaphragm. Either a total or subtotal gastrectomy can be done without difficulty, and it has seemed to us that the patients have less postoperative discomfort than they do after laparotomy. The pylorus and antrum are quite accessible in this manner, although in one patient who had an old healed duodenal ulcer in addition to a high posterior

wall gastric ulcer we had some difficulty in closing the duodenal stump.

Owing to improvements in surgical technic and anesthesia, better preoperative and postoperative care, and the use of the sulfonamide drugs, the risk of subtotal gastrectomy for ulcer as described is no longer prohibitively high. If a surgeon's postoperative mortality rate is greater than 3 or 4 per cent (except in cases with acute massive bleeding), he should subject his methods to critical analysis, as being unsatisfactory for this purpose. The internist or family doctor should take a keen interest in this point when surgical treatment comes to be considered.

When subtotal gastric resection is performed for gastric ulcer, how effective is the procedure in reducing digestive invalidism and preventing recurrent or marginal ulcer? The immediate relief that the patient with a penetrating gastric ulcer obtains from properly performed gastric resection is striking, even within the first two or three days after operation. Pain disappears, sedative is no longer needed, and the patient has restful nights. Such patients are among the most grateful whom the surgeon sees. Whether the patient remains completely free from digestive difficulties will depend to some extent on his behavior. These patients should be told before operation that they will have a much higher degree of alimentary health, but nevertheless they will not be able to disregard sensible rules of eating. Eating too rapidly, taking oversized meals or coarse food, excessive indulgence in alcohol or tobacco may be followed by jejunitis, gastritis, cramps, and diarrhea. It may be stated in general, however, that the results of subtotal gastrectomy for gastric ulcer are entirely satisfactory in over 95 per cent of the

The incidence of recurrent gastric or jejunal ulcer following subtotal gastrectomy for gastric ulcer is hard to estimate accurately, but unquestionably the complication is rare. In a followup study of 162 cases by questionnaire, Walters found no evidence of gastrojejunal ulcer in a period of one to five years after operation, and in only one case was there possible bleeding.3 Kiefer observed uniformly good results in 49 patients with gastric ulcer treated by subtotal gastric resection. The time interval after operation is not precisely noted in his report.4 It is of interest that gastrojejunal ulceration is found somewhat less rarely after gastric resection for duodenal ulcer. One wonders whether this would hold if equally extensive resection were done for duodenal ulcer and if the ulcer was invariably removed.

What are the indications for subtotal gastric resection in the treatment of gastric ulcer? In

general, surgical treatment should be advised when complications of ulcer develop and when there is doubt as to the benign nature of the ulcer. The complications are perforation, obstruction, hemorrhage, and penetration. Perforation and obstruction will not be discussed, but we shall deal briefly with hemorrhage and penetration and finally with the cases in which suspicion of carcinoma must be held.

The question of whether to operate on severely bleeding peptic ulcers has been discussed lengthily and testily by internists and surgeons, and opinion still remains divided. As is often true in medicine, the confusion arises in the lack of a body of accurate data, and in the existence of variables which we have no knowledge of or which we cannot control. As an obvious example, the skill of the available surgeon and anesthetist is a point of utmost importance in deciding on the course to be followed, yet this factor cannot be standardized. The extent of blood loss, previous nutritional state, ability to compensate for hemorrhage, the size of the vessel eroded by the ulcer, and the inflammatory fixation of the vessel wall which prevents its contraction are values which influence the outcome of treatment and yet are hard to appraise in the case at hand. Statistics show that fatal bleeding is considerably more apt to occur in the older age group and some clinicians base their choice of surgical or nonoperative treatment on the age of the patient. Thus, immediate operation is favored in the group over 50 years of age, but not in the younger patients. Age is not so accurate a yardstick of physiologic reserve as this conception implies, and the practice of medicine would be less entertaining if it were. Undoubtedly, the older patients as a group are less able to make the adjustments to blood loss, but this consideration may be of little help in a particular case. What if the patient exceeds the arbitrary age limit by two, five, or eight years?

For our part, we incline to surgical treatment of severely bleeding gastric (or duodenal) ulcer, the only contraindications being doubt as to diagnosis and inability to obtain the large amount of blood needed in restorative therapy. Operation should be done as soon as possible, but not before time has been taken for infusion of blood and physiologic salt solution in large amount. Blood transfusion is continued during the operation and afterward. A common error in the management of these cases is to give too little blood. The amount of blood that is vomited may be far less than the total lost, and the blood pressure and pulse reactions may return to normal before deficits of hemoglobin and plasma protein have been completely met. Ether is

given through an intratracheal tube with a high oxygen admixture, and oxygen therapy is continued after operation. The operation of choice is subtotal gastric resection, the ulcer-bearing area being included in the part removed.

#### Case Reports

The following illustrative cases are presented:

Case 1 .- G. S., a 62-year-old white man, was brought into the hospital with a history of epigastric pain, vomiting of blood, and passing loose, dark stools for thirty-six hours. Twenty-three years previously he had had an operation in another hospital for "removal of stomach ulcers," and thereafter had little trouble with his digestion. At admission there were pallor, thirst, hypotension, epigastric tenderness, and tarry feces at rectal examination. The blood pressure was 88 over 64, the pulse rate 100; the red cell count was 2.2 million and the hemoglobin 7 Gm. per 100 cc. Being influenced by the fact that the patient was known to have arteriosclerotic hypertensive heart disease and realizing that the previous gastric operation would complicate the present technical problem, we put the patient on a regimen of frequent milk and cream feedings, blood transfusions, infusions of physiologic salt solution and 5 per cent glucose, and sedatives. Following several of the transfusions, the patient had severe chills, but nevertheless he did fairly well until the ninth day in the hospital. He then showed evidence of further severe hemorrhage, vomited up much blood, and evinced the signs of circulatory collapse.

After the administration of a liter of blood, the patient was operated upon. Another liter of blood was given during the course of the operation, both arm and leg veins being used simultaneously. Subtotal gastric resection with resection of the jejunum and end-to-end anastomosis was performed under intratracheal ether anesthesia. The blood pressure and pulse remained stable throughout the operation. A posterior wall gastric ulcer 2.5 cm. in diameter was found near the lesser curvature and proximal to a well-functioning gastro-enterostomy. Convalescence was interrupted by basal pulmonary atelectasis on the right and mild wound infection. The pathologist found the gastric ulcer to be benign.

Case 2.—H. S., a 47-year-old man, was admitted to the hospital with a history of epigastric pain, persistent vomiting of bloody material, tarry stools, and a loss of 10 pounds in weight over a period of two weeks. For the previous nine years he had been troubled with frequent bouts of epigastric distress and pain, relieved by food or soda. On examination the patient was found to be anemic, and there was diffuse epigastric tenderness without spasm. The red cell count was 3.1 million per cm., the hemoglobin 10.5 Gm. per 100 cc. were black and gave strongly positive tests for blood. The serum urea nitrogen was 10 mg. per 100 cc. and the protein was 6.0 Gm. per 100 cc. The patient was treated by blood transfusions, liquid diet, and vitamin preparations given orally and parent-

erally. Vomiting, pain, and evidence of bleeding continued and accordingly subtotal gastric resection was performed two weeks after admission. Two penetrating ulcers were found. One, in the anterosuperior wall of the first part of the duodenum, had involved the inferior aspect of the left lobe of the liver, while the other, in the posterior wall of the midportion of the stomach, had penetrated the pancreas. Convalescence was uneventful except for superficial phlebitis of the internal saphenous vein at the site of infusions. Examination of the operative specimen by the pathologist confirmed the diagnosis of benign penetrating peptic ulcers.

Criticism might be raised of the handling of both Case 1 and Case 2 on the grounds that operation should have been done earlier. Early operation—i.e., within twenty-four hours after admission—is a rational general plan in our opinion, time being taken only to meet fluid and transfusion needs.

Penetration of the gastric ulcer is a common complication leading to surgical treatment. Pain which is intractable on a careful medical regimen suggests that the gastric ulcer has involved the serosa of the stomach, or has burrowed into neighboring viscera such as the pancreas, liver, or intestine. Upper abdominal pain radiating around to the back, or pain referred to the base of the neck anteriorly indicates involvement of pancreas or diaphragm. Penetration often results in the erosion of a large vessel and severe hemorrhage may be the consequence. Such secondary effects of penetration as pancreatitis and gastrointestinal fistula may bring the patient into the hands of the surgeon. There is usually no difficulty in persuading this group of patients to be operated upon, and they suffer so much that they may urgently demand surgical relief of their doctors. The immediate as well as the late results of operation are gratifying. The operation of choice is subtotal gastric resection in most instances, but it is occasionally necessary to remove all the stomach in order to extirpate the ulcer satisfactorily. If the ulcer has penetrated neighboring viscera, the operative plan will vary according to the circumstances. It may be desirable to carry out the surgical treatment in stages and to excise involved portions of other organs, such as the pancreas and colon.

Brief illustrative case reports follow:

Case 3.—P. T., a 63-year-old man, was brought into the hosital giving a history of recurring bouts of pain, of two years' duration, in the left hypochondrium, radiating to the back. Nine months before admission he was told in another hospital that he had gastric ulcer, and at that time dietary management was recommended but was rather poorly carried out. Four weeks before admission the patient noticed the passage of soft black stools,

and much blood was vomited. There was loss of considerable weight, but the exact amount was unknown. The patient was admitted in a state of shock from blood loss. There were pallor, hypotension, and persistent tenderness in the left hypochondrium. The red cell count was 1.2 million, the hemoglobin 4.2 Gm. per 100 cc. The stools gave strongly positive reactions for blood and vomitus also contained blood. The serum protein value was 3.7 Gm. per 100 cc., the urea nitrogen 10 mg. per 100 cc. It was felt that the patient could not withstand immediate operation, and he was put on a regimen of repeated blood transfusions, infusion of amino acid solution, frequent feedings of milk and cream, and vitamin supplements orally and parenterally. During the course of three weeks, evidence of hemorrhage ceased, and the patient's general condition improved. X-ray showed a large penetrating posterior wall gastric ulcer just below the cardia. Since the ulcer was at the cardia and since the patient had a high diaphragm in relation to the costal margins, the transthoracic-transdiaphragmatic approach was used at operation. An indurated penetrating ulcer 3 cm. in diameter was situated on the posterior wall of the stomach, and the surrounding reaction involved the cardiac orifice. The pancreas had been invaded. Total gastrectomy was performed, and the jejunum was united to the esophagus, without supplementary jejunojejunostomy. The ulcer proved benign at pathologic examination. Convalescence was rapid and uneventful, and four months later the patient was free from complaints and was gaining weight.

In this instance the penetrating ulcer not only invaded the pancreas and caused severe pain, but it also caused massive hemorrhage and led to profound inanition.

Case 4.—R. M., a 50-year-old man, had been troubled for four or five years by recurring periods of epigastric pain, coming on one or two hours after meals and relieved by sodium bicarbonate. For six weeks before admission he had had intermittent diarrhea and constipation, and he had noticed black feces, loss of weight, and fatigability. For two days before admission he had vomited up coffee-grounds material. At examination the patient appeared emaciated, anemic, and cachetic. Epigastric tenderness was pronounced and localized. The red cell count was 1.1 million, the hemoglobin 5,7 Gm. per 100 cc. The serum protein concentration was 4.9 Gm. per 100 cc., there was free acid in the gastric juice, and the The x-ray examination stools contained blood. disclosed a penetrating ulcer in the posterior wall of the stomach near the lesser curvature with a definite fistula between the stomach and the distal transverse colon. The radiologic diagnosis was cancerous ulcer and fistula.

Surgical treatment was performed in stages, the first operation being the Devine, defunctioning ascending colostomy. The patient's improvement after this was striking, and he are ravenously. Six weeks later subtotal gastric resection and resection

of the colon at the site of the fistula were performed. Convalescence was uneventful, and the Devine colostomy was closed five weeks later. Now, six months afterward, the patient is free from symptoms and is back at work. The pathologic study showed a benign penetrating gastric ulcer with gastocolic fistula.

In his management of gastric ulcer, a point to be kept ever foremost in the physician's mind is possible error in diagnosis. Has the patient cancerous instead of benign ulceration, the symptoms of which may be relieved by dietary care, sedatives, and antispasmodics while the growth advances beyond possibility of cure? The grave responsibility involved in the nonsurgical management of chronic gastric ulcer is not properly appreciated by many physicians, despite the mounting literature on the subject. Doubt as to the benign nature of the ulcer is the indication for surgical treatment which is probably most often neglected, and with most disastrous results. When a gastric ulcer perforates, obstructs the pylorus, penetrates sensitive peritoneal coats, or erodes an artery, the patient and his doctor readily appreciate its seriousness, but unfortunately early cancerous ulceration may not force itself upon their notice by a compelling symptomatology. Three wellfounded statements which every physician who undertakes to treat gastric ulcer should frame and hang on his office wall are:

1. From 6 to 20 per cent of gastric ulcers, as variously estimated, become malignant.<sup>3</sup>

2. Malignant gastric ulceration may undergo symptomatic and x-ray improvement on the medical ulcer regimen.<sup>5</sup>

3. The curable gastric cancer is the one operated upon early.

Cancer of the stomach in this country vies with cancer of the lung in being the most common and most lethal cancer in the male, and it is responsible for about 100 deaths every twenty-four hours. In its earlier stages it can be cured by adequate surgical operation, and yet the cases continue to come to the surgeon dishearteningly late. In the Charity Hospital in New Orleans, as reported by Boyce, 70 per cent of the cases of gastric cancer were so far advanced on admission that even exploratory laparotomy was not worth while.

What are the findings which raise doubt as to whether a gastric ulceration is benign? These are summarized by Eusterman<sup>6</sup> as follows: (1) location in the prepyloric region, posterior wall, or greater curvature; (2) large size—i.e. 3 cm. or more in diameter; (3) absence of free hydrochloric acid in the gastric juice after histamine stimulation; (4) occult blood in the feces during

treatment; (5) late onset in an elderly individual. It has been repeatedly pointed out that there are cancer areas in the stomach, although the fact is as difficult to explain as is the immunity of the duodenal mucosa to cancer. Gastroscopic study by an experienced observer may be helpful in deciding whether the gastric ulcer is benign or malignant, but neither the radiologist nor gastroscopist can speak with assurance about the early case. Even the pathologist in some instances must examine serial sections of the ulcer before he can establish the diagnosis of cancer. Allen and Welch,7 as a result of careful and systematic study of a series of cases of gastric ulceration, recommend immediate surgery for any one of the following indications:

- 1. If the ulcer is of short duration and the patient is over 50 years of age.
  - 2. If the ulcer is over 2.5 cm. in diameter.
- 3. If there is no free hydrochloric acid in the stomach.
- 4. If the ulcer is in the greater curvature or in the prepyloric region.
- If the ulcer is chronic and on a lesser curvature.

Is it better to operate on the suspicious ulcer and find it benign, or postpone operation until the progress of the growth leaves no doubt whatsoever as to its nature?

Illustrative cases are briefly described below:

Case 5.—A. C., a 56-year-old man, gave a history of bouts of epigastric pain and distress relieved by food during a period of two years. Two months before the present admission, he had been under treatment in a hospital for his digestive complaints, the discharge diagnosis being chronic peptic ulcer. In the eight weeks since his discharge, he had been troubled with continuous epigastric pain, loss of weight and strength, and had noticed black stools. On admission the red cell count was 5.5 million, the hemoglobin 12.5 Gm. per 100 cc. Free acid was present in the gastric juice after histamine stimulation. The radiologic study showed a deforming prepyloric ulceration which was interpreted as being carcinoma. The preoperative diagnosis was chronic gastric ulcer with probable malignant change. An indurated ulcer 2.5 cm. in diameter was found at the pylorus, and radical subtotal gastric resection was performed with removal of the gastrohepatic and gastrocolic ligaments and the great omentum. Convalescence was uneventful. The pathologist reported chronic peptic ulcer with superimposed immature scirrhous carcinoma, and the regional lymph nodes were found to be involved in metastases.

This case falls definitely into the group in which peptic ulcer symptomatology is followed by gastric carcinoma. The pathologic evidence in this instance substantiated the view that the carcinoma arose in peptic ulcer. At his earlier

admission to the hospital the patient's physicians failed to recognize the danger of the gastric ulceration at the pylorus and did not recommend operation.

Case 6.—A. C., a 44-year-old man, gave a history going back five years of epigastric distress one or two hours after eating, with relief by food and alkali. Vomiting was frequent. Three years before the present admission, a perforated duodenal ulcer was closed at operation with satisfactory convalescence. The patient visited the outpatient clinic regularly and by faithful dieting kept his symptoms moderately well controlled. However, six to eight months before admission epigastric fullness and pain became more troublesome, and he noticed blood in the vomitus. He had a good appetite but was afraid to eat. At the patient's insistence his physician referred him to the hospital for surgical treatment. Results of the physical examination were negative and laboratory findings were essentially normal, except for a serum protein value of 5.4 Gm. per 100 cc. The gastric juice after histamine contained 26 units of free hydrochloric acid. X-ray study showed what was called healed duodenal ulcer and prepyloric ulceration with partial obstruction. At operation subtotal gastric resection was performed for what appeared to be a benign obstructing lesion. The patient made a rapid convalescence and at present, four months later, is without complaints. The pathologist's report in part read as follows: gastric side just at the pylorus is a firm contracted area as seen and felt, about 2 cm. in diameter. A distinctly invading mucinous carcinoma extending to the subserosa is present and there is some evidence to point to the possibility that the tumor may have originated in peptic ulcer. A distinct reactive inflammation is present. The lymph nodes examined showed no metastases."

This, then, was an early carcinoma probably arising in prepyloric gastric ulcer, and the prognosis after surgical removal would appear to be reasonably good. The patient himself deserves the credit for demanding surgical operation.

Case 7.-J. C., a 36-year-old white man, was sent into the hospital with a diagnosis of peptic ulcer. For eight or nine weeks he had been troubled with epigastric pain before meals and vomiting of partly digested food and brownish liquid possible containing blood. He had received some relief from powder and pills prescribed by his doctor. On admission there was epigastric tenderness at physical examination but no other abnormality. The gastric juice contained 61 units of free acid after histamine, the stools and gastric juice contained occult blood. The hemoglobin was 14.8 Gm. per 100 cc., and the serum protein value was 6.7 Gm. per 100 cc. Gastroscopic examination revealed an ulcerating lesion in the pyloric antrum, localized, and probably malignant. Radiologic study showed "a large, shallow ulceration on the lesser curvature near the angulus," and the lesion was interpreted as prob-

able malignant degeneration of peptic ulcer. With much difficulty the patient was persuaded to submit to an operation. A crateriform malignant ulcer was found, 6 by 4 cm. in diameter, on the anterior wall of the stomach just proximal to the pylorus. The lymph nodes did not appear to be involved. A radical subtotal gastric resection was done, with removal of the great omentum and the ligamentous attachments of the stomach, including the lymph nodes. Convalescence was uneventful.

In conclusion, gastric ulcer is often best treated by subtotal gastric resection, for the operation is reasonably safe, and it is highly effective in

the relief of digestive invalidism. Nonsurgical management places a grave responsibility on the physician in charge of the case.

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#### THE HYGIENE OF COUGHING AND SNEEZ-ING

There would be fewer colds and much less tuberculosis, influenza, pneumonia, diphtheria, whooping cough, and other diseases spread by saliva if people only would learn to cough and sneeze properly, Lt. Samuel F. Harby, USNR, points out in the December issue of Hygeia, The Health Magazine.

"Whenever you feel a cough or sneeze coming on," he advises, "turn your head away from other people, and cough down at the floor. The thousands of small droplets of saliva which escape inevitably from your mouth as you cough are thus thrown down at the floor, where they have little chance of getting on your associates, and especially into their mouths to cause respiratory infection.

"Even if you were able to cover your mouth completely with your hand, so that no droplets, or spray could get by it, you would still fail to protect your associates from your germs, because your hand becomes soiled when you cough on it, and almost immediately afterward you touch other people, or the things which they will touch. Thus, indirectly, germs are transferred from your mouth to someone else's mouth or—what happens more frequently—to someone else's hand, food, eating utensil, or other object which will eventually reach his mouth. . . . .

#### HEALTH OF AMERICANS UNSCATHED BY FIRST YEAR OF WAR

American families, living far from the theater of combat, came through the first year of the war relatively unscathed. They were still enjoying the benefits of the good health service they built up during the preceding period of peace. Our excellent medical and public health facilities, together with our rising standard of living, made possible the marked gains in longevity. But there are definite signs that the conflict in which the nation is engaged made itself felt with much more weight in 1943. Current mortality data indicate that 1943 witnessed the first setbac: in longevity since 1929. This retrogression is doubt-less, in part, a product of the war. Our public health facilities can no longer expand as in the past; actually the supply of civilian physicians and nurses is materially cut down. Living conditions around many of our centers of war industry are far from satisfactory. The mounting losses in the armed forces and the tightened conditions of living of the civilian population will inevitably be written into the figures of mortality and longevity. when these become available at the close of the year.—Statistical Bulletin, Metropolitan Life Insurance Company

#### NEW TECHNIC MAY HELP DONORS GIVE BLOOD MORE FREQUENTLY

Preliminary studies, reported in the Journal of the American Medical Association for February 5, indicate that by reinfusing into donors the red blood cells that are left after the plasma has been separated, the frequency of blood donations might be safely increased to the point where the entire plasma requirements of the armed forces might be obtained from a vastly smaller number of persons than is now possible under the system of eight-week intervals between donations.

From their findings in a study of 6 volunteer donors who were subjected to frequent blood dona-

tions, each one followed by a reinfusion of the red cells, Co Tui, M.D., New York; F. C. Bartter, M.D., Brooklyn; A. M. Wright, M.D., New York; and R. B. Holt, M.D., Washington, D.C., already are able to recommend "that the practice of reinfusion of red cells into the denses be adonted where fusion of red cells into the donors be adopted where there is malnutrition in the donating population and/or where a large proportion of the donors are women." More extensive studies will be necessary, the investigators and the conthe investigators point out, before it can be concluded how much more frequently it will be safe to bleed donors provided red cells are reinfused.

#### X-RAY DIAGNOSIS OF BRONCHOGENIC CARCINOMA

G. NEWTON SCATCHARD, M.D., Buffalo

ONE of the most important malignancies with which we have to deal is bronchogenic carcinoma. This is true because it is the second most frequent malignancy in the male. Carcinoma of the stomach is the only one which occurs more often. In our clinic we see two lung carcinomas to every three which we see in the stomach. The ratio is even as high as one to one in some clinics. This lesion kills 15,000 yearly in the United States and accounts for approximately one-tenth of all the cancer deaths.

The second reason that it is important is that if the diagnosis can be made before extensive or distant metastasis has occurred it may still be an operable lesion. The rapid progress of thoracic surgery has changed bronchogenic cancer from a hopeless lesion to one in which successful operation can be anticipated in a reasonable number of cases. The cure rate in operable lesions in this condition is probably higher than in operable gastric cancer.<sup>2</sup> The best that can be hoped for with x-ray therapy is palliation.<sup>3</sup> If there is any possibility that the lesion is operable, it should be operated upon as soon as possible and x-ray therapy should certainly not be tried.

If the extremely high mortality rate of this common malignancy is to be lowered, it is imperative that the diagnosis be made accurately and early. In order to do this, there must be close cooperation between the clinician, bronchoscopist, thoracic surgeon, pathologist, and roent-genologist.

Early diagnosis is the first important step, without which we cannot hope to lower the mortality rate. The roentgenologist bears great responsibility here. He cannot make the diagnosis alone, however. His duty is to suspect the lesion and report this suspicion, in order that the additional required studies may be done without delay.

The usual first step after the x-ray is reported to be suspicious is bronchoscopy. This is essential. In 50 to 75 per cent of cases the lesion can be seen and biopsied, thus definitely establishing the diagnosis. Some clue as to the operability of the lesion can also be obtained. The most important thing to be stressed here, and a point which is not often fully appreciated, is that there are some 25 to 50 per cent of the cases in which the bronchoscopist cannot visualize the lesion. With these figures in mind, we see that carcin-

oma of the lung is not ruled out when the bronchoscopist cannot see the cancer.

This brings us to the rather large group of cases which are the most difficult to diagnose—the ones located away from the larger bronchi, which cannot be seen by the bronchoscopist but appear clinically and radiographically to be malignant. Numerous partially satisfactory approaches to this problem have been suggested, such as pneumothorax, lipiodol studies, aspiration biopsy, examination of the sputum for tumor cells, etc. None of these methods is adequate and some are dangerous or complicate the surgical procedures to be done later. They are also time-consuming. They have proved to be of little help in our experience.

We believe that exploratory thoracotomy has an extremely important place in establishing the diagnosis in the group of cases we are discussing.7 It is not an especially hazardous procedure in the hands of a well-trained thoracic surgeon. We believe, as do others, that it is no more formidable in the proper hands than is exploratory laparotomy. There are many cases in which this is the only sure method of establishing the diagnosis. If at operation the preoperative impression of primary malignancy is established, by frozen section or other means, and the lesion proves to be operable, it can be removed with no further delay. I believe that as the procedure becomes more widely accepted and is done early, the mortality rate in bronchogenic carcinoma will be lowered. Procrastination because of dread of an operation or to see if the lesion may not disappear in a month or two, or for the trial of x-ray therapy before subjecting the patient to an operation, may allow sufficient time for some of the operable cases to become inoperable.

We are all well aware of the extreme variability of both x-ray and clinical findings in this condition. This variability seems to depend almost entirely on mechanical factors. The carcinoma may arise in any portion of the bronchial tree. The resulting x-ray findings depend on the size and location and on the secondary pulmonary effects. To illustrate this, it seems best to take up the various types seen and attempt to explain them on this mechanical basis.

The most common type and the one usually considered as the classical picture is that which shows at electasis of a lobe (Fig. 1). This occurs when a tumor arises in one of the first-order bronchi, which it obstructs, causing an entire

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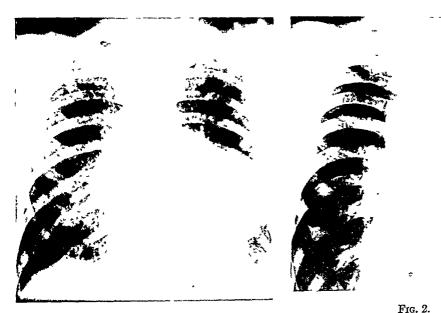


Fig. 1.

lobe to become atelectatic. In this type, there is usually some growth of the tumor outside of the bronchus, making a tumor mass which

There is one type which cannot be seen by x-ray. This causes no obstruction and is an ulcerating lesion in a large bronchus. Dry cough and hemoptysis are the usual symptoms. Such a lesion is easily demonstrated by the bronchoscopist. These are frequently inoperable when discovered.8

can be seen by x-ray in the proper projection.

Carcinoma arising in this same portion of the



Fig. 3.

bronchial tree but tending to infiltrate outward into the parenchyma makes the so-called hilum nodular type of carcinoma. Here the x-ray shows a tumor mass, usually pretty well circumscribed, close to the hilum and infiltrating the lung (Fig. 2). This is a transitory type and as the lesion progresses it almost always causes obstruction of the involved bronchus, followed by atelectasis of the lung tissue supplied by it.

In some cases, the obstruction to the bronchus is only partial. Such patients at first, if there is a ball-valve action present, develop an emphysematous area or lobe, which can be readily demonstrated by x-ray. Later in the disease, as the obstruction becomes more complete, such a lobe becomes dense and solid, due to infection. Here the resulting density of the lobe, which is expanded rather than shrunken, may give the impression of unresolved pneumonia (which is always dangerous). We call this type the pneu-

monic type. Closely related to this group is the somewhat more frequent type which may be called "cavitary." This type forms cavities either in the tumor itself, as a result of poor blood supply to the central portion, or, more frequently, in the atelectatic lung beyond the obstructing tumor as a result of infection and abscess formation When such lesions occur in the upper lobe they are easily confused with tuberculosis (Fig. 3). In other locations they are most easily mistaken for lung abscesses. The diagnosis of tuberculosis should be made with caution when such a lesion is unilateral, when the general clinical picture indicates more systemic reaction than would be expected, and, most important, when in the



Fig. 4.

Fig. 5.

presence of cavitation tubercle bacilli cannot be demonstrated. The differentiation between carcinomatous and simple lung abscess is often impossible by x-ray and must depend upon the bronchoscopist.

The "diffuse type" of bronchogenic carcinoma is, fortunately, rare. Here a whole lobe or even a whole lung may be studded with numerous apparently discrete tumors of varying size scattered through the lung tissue.

Another rather common type is the one which resembles a tumor of the lymphoblastoma group Here the primary tumor is located centrally and metastatic masses fill the mediastinum (Fig. 4). The only atelectasis seen in these cases is due to compression by the masses of tumor tissue. When no tissue is available for biopsy in such cases, a trial of x-ray treatment as a therapeutic test is justifiable. If the masses do not recede in a week or ten days it can be assumed with some certainty that the lesion is bronchogenic carcinoma.

The peripheral lesions are the most interesting from the diagnostic standpoint and tend to be the most hopeful surgically. These arise in the smaller bronchi in any portion of the lung and usually are infiltrating, although some may appear well circumscribed (Fig. 5) These tumorusually cannot be seen by the bronchoscopist Cases falling in this group may be mistaken for benign tumors or for inflammatory lesions. If, after careful study, no adequate explanation is found for the lesion, even if it is well circumscribed, exploratory thoracotomy must be performed as a diagnostic procedure. A rather large proportion of these peripheral, infiltrating,

or even apparently circumscribed lesions will turn out to be malignant. Procrastination in doing a thoracotomy here may be fatal, as these are the most favorable group from the surgical standpoint and delay may allow the tumor to become inoperable.<sup>10</sup>

Peripheral tumors may occasionally remain small when they are in contact with the pleura but may cause massive pleural metastases to occur. These may be so extensive as to completely obscure the primary tumor both to the radiologist and to the pathologist, giving the



Fig. 6.

impression that these are primary, pleural tumors (Fig. 6). Usually a careful search at postmortem will reveal the relatively small bronchogenic carcinoma.

In conclusion, I believe that the x-ray can demonstrate most early bronchogenic carcinomas if the condition is kept in mind and searched for, and that if immediate bronchoscopy is done in all suspicious cases and exploratory thoracotomy is done early in properly studied cases as a diagnostic procedure and followed by a pneumonectomy in operable cases, the mortality rate from bronchogenic carcinoma can be lowered. X-ray therapy is of great palliative value but

should not be used until the lesion is proved to be inoperable.

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#### HOLMES AS A PSYCHIATRIST

The medical aspects of Holmes's career are being re-examined and re-evaluated. His place in American literature is secure, but many are asking what about his niche in American medicine? Did he, except for his outstanding contribution in 1843 to preventive medicine, the paper "On the Contagiousness of Puerperal Fever," exert any considerable influence on the trend of medical thought or leave buried in his writings material not fully appreciated at the time of its writing, or since? Undoubtedly the stamp of Holmes's dynamic character left an impression on a generation or more of the medical students who attended his anatomic lectures. He gave an impetus, moreover, to the public demonstration of the administration of ether by coining the term "anesthesia," stimulated research with the aid of the microscope, and used his vast influence in 1875 to re-establish the Boston Medical Library for his generation and for posterity. These are, however, as time has listed them, minor contributions. What else did Holmes add to the medical scene? What about the "medicated novels," and Holmes as a psychiatrist?

Little attention has been paid to Holmes's interests in mental abcrration or to Holmes as a clinical psychiatrist. It is now realized, thanks to the re-searches of Oberndorf,\* that Holmes was long a profound student of mental disease and that he had pronounced and advanced ideas on mental mechanisms. Possibly hesitant about presenting his thoughts before his medical colleagues, or at least doubtful about their acceptance in the form of a medical paper, he chose the medium of the novel to bring his opinions before the public. Neither Elsie Venner (1859) nor The Guardian Angel (1867) was a literary product of excellent quality when compared with contemporary works of Poe, Thackeray, and Hawthorne. But they were studies of the abnormal mind, and simple though the stories are, both books give us an insight into Holmes's profound psychiatric understanding. His doctors, moreover, com-bine, as noted by Oberndorf, "those qualities so desirable in every physician but indispensable in a

psychiatrist-namely, patience, forbearance, tolerance, equanimity, accurate observation of the patient's actions and utterances, and unremitting consideration for the patient's psychological and en-

vironmental handicaps."
Following the novels, Holmes became so engrossed in the theme of the social significance of mental deviation that he chose this subject for his address to the Phi Beta Kappa Society at Harvard in 1871. "Mechanism in Thought and Morals," as the paper was called, was withheld from publication for more than twenty years, and only after careful revision, expansion, and annotation had taken place did Holmes allow it to appear in print, hidden in Pages from an Old Volume of Life (1892). There, this address, with its modern flavor and psychoanalytic leavings has been allowed to rest nearly uppatied. leanings, has been allowed to rest nearly unnoticed. In this essay will be found opinions strangely similar to those so reluctantly accepted by the medical profession after they were re-emphasized by Freud forty years later. In the brain, Holmes considered, there persists a material record of thought; and secondly, this transmissible record is not at all times available to the person for the control of his actions. Are these ideas not the "indestructibility of infan-tile thought and impressions" and the "importance and influence of unconscious mentation"—the foundation stones of Freud's psychoanalytic structure? ture? At least Oberndorf thinks so, and his book makes a strong case in Holmes's favor. Except for a pleasant whimsicality, so characteristic of Holmes, the following passage from his address might well have been written by Freud in 1910:

There are thoughts that never emerge into consciousness, which yet make their influence felt among the perceptible mental currents, just as the unseen planets sway the movements of those which are watched and mapped by the astronomer. Old prejudices, that are ashamed to confess themselves, mudge our talking thought to attentible megisterial nudge our talking thought to utter their magisterial veto. In hours of languor, as Mr. Lecky has remarked, the beliefs and fancies of obsolete conditions are apt to take advantage of us. We know the state of the conditions are apt to take advantage of us. very little of the contents of our minds until some sudden jar brings out the old stockings full of gold, and all the hoards that have hid away in holes and

crannies."—New England J. M.

<sup>\*</sup> Oberndorf, C. P.: The Psychiatric Novels of Oliver Wendell Holmes, New York, Columbia University Press, 1943.

#### THE SIGNIFICANCE OF ABSENT PHARYNGEAL AND CORNEAL REFLEXES IN CUTANEOUS DISEASES

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THERE are a number of diseases reported in the dermatologic literature in which absent corneal and pharyngeal reflexes are offered as evidence suggesting a psychogenic origin. Cases of dermatitis factitia, neurotic excoriations, trirhotillomania, and psychogenic pruritus have been reported to show an absence of these reflexes. A number of investigators have recorded their belief that a loss of these reflexes in dermatitis factitia is important in differentiating this dermatosis from neurotic excoriations. Dermatitis factitia is regarded as a manifestation of hysteria, while neurotic excoriations and trichotillomania are considered to be compulsion neuroses. This confusion concerning the significance of the corneal and pharyngeal reflexes in psychogenic dermatoses has prompted us to review the literature on the subject and to make a comparative study of these reflexes in known dermatopsychotic patients, in patients with other dermatoses, and in normal individuals.

#### Review of the Literature

The first reference in the literature to corneal anesthesia due to hysteria was published in La Vérité des Miracles in 1747. A Mme. Stopart had been cured of blindness of ten years' duration which affected her left eye. There was complete anesthesia, as a finger could be placed against the cornea without producing any sensation or movement. A final cure was effected by a "miracle treatment," suggesting, according to the concept of many present-day observers, that the absent corneal reflex was a result of hysteria. Absence of the pharyngeal reflex appears to have first been described as a symptom of hysteria in 1872 by Austie2 in the Lancet. The absence of corneal and pharyngeal reflexes may, of course, be due to organic lesions along the nerve pathways that are involved. In these instances, the signs are of greater importance when they are unilateral and are associated with other evidence of nerve distur-

There is considerable disagreement among neurologists regarding the significance of absent corneal and pharyngeal reflexes as stigmas of hysteria. According to Wechsler3 "bilateral loss of the corneal reflexes is a well known stigma of

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hysteria." He states that the bilateral absence of the pharyngeal reflex is also frequently astigma.

McKendree states that the corneal reflex may be, but is not always, absent, and that the pharyngeal reflex is not infrequently absent in hysteria.

We were able to find in the literature only three reports of studies of the pharyngeal reflex in normal individuals. Englehardt,5 in 1893, made tests of pharvngeal reflexes of normal and hysterical individuals. Of 200 normal individuals he found that 57 per cent showed a positive reaction, 18 per cent reacted partially, and 25 per cent showed an absence of the reflex. Of the 10 definitely hysterical subjects whom he examined. 7 showed positive reactions. Bircks, in 1894. tested the pharyngeal reflex in 200 normal persons and found 71 per cent to give positive reactions, 7 per cent to give sluggish reactions, and 22 per cent in which there was a complete absence of the reflex. Of 8 known hysterical persons whom he examined, he found a positive reaction to the pharvngeal reflex in 5, a slight reaction in 1, and no reaction in the other 2. He concluded that "the absence of the pharyngeal reflex is, therefore, not unusual in normal individuals and it is difficult to understand why it should be considered an important sign in the diagnosis of hysteria." Hurst,7 in 1920, placed little reliance on the absence of this reflex as an indication of hysteria. He stated "when care is taken to avoid suggestion, complete pharyngeal anesthesia is hardly ever found and the comparatively rare absence of reflexes is met with in normal people just as often as in patients with hysterical symptoms." This conclusion was based on a study of 170 nonhysterical cases and 64 hysteri-All, except one, showed a pharvageal reflex in one of the 7 degrees of excitability described by the author. These degrees of excitability ranged from "the anesthetic and no reflex" to "the maximal reflex making examination quite impossible." The single patient in whom complete pharyngeal anesthesia was present was, according to Hurst, a stolid individual.

We were unable to find in the literature any studies of the corneal reflex in normal individuals.

Lester<sup>8</sup> reported a known case of hysteria in which both the pharyngeal and corneal reflexes were present.

A survey of reports of cases of psychogenic dermatoses published in the Archives of Dermatology and Syphilology (Table 1) shows that

TABLE 1.—Case Reports of Psychogenic Dermatoses in the Archives of Dermatology and Syphilology

Reference					lexes
Number	Sex	Age	Disease	Pharyngeal	Corneal
9 (a)	Female	26	Dermatitis factitia	Absent	Absent
(b)	Female	27	Dermatitis factitia	Absent	Absent
(6)	Female	39	Dermatitis factitia (hysteria)	Absent	Absent
(d)	Female	17	Dermatitis factitia .	${f Absent}$	Absent
(e)	Female	21	Dermatitis artefacta?	Absent	Absent
(e) (e) (f)	Male	29	A case for diagnosis (derma- titis factitia?)	Absent	Absent
(a)	Female	23	Dermatitis factitia	Absent	Absent
(g) (h) (i)	Female	16	Dermatitis factitis	Absent	Absent
>%	Male	34	Dermatitis factitia	Absent	Absent
10 (a)	Female	23	Dermatitis factitia	Not recorded	Absent
10 (a) (b)	Female	12	A case for diagnosis (derma- titis artefacta)	Not recorded	Absent
11	Male	45	Dermatitis factitia	Absent	Not records
11 12 13	Female	21	Dermatitis factitis	Lowered	Not record
12		12	Dermatitis factitia	Present	Not record
13	Female	26	A borderline case of neurotic	Absent	Absent
14 (a)	Female	20	excoriations	1103011	
(b)	Male	25	Neurotic excoriations	Absent	Absent .
	Male	54	Neurotic exceriations	Absent	Notrecord
15 (a) (b)	Female	39	A case for diagnosis (neurotic	Absent	Not recorde
16	Male	21	excoriations) A case for diagnosis (neurotic	Lowered	Lowered
	214410		excoriations)		444
17	Male	48	Trichotillomania	Absent	Absent
18	Female	<b>5</b> 5	Trichotillomania	Present	Present
19	Female	26	Psychogenic pruritus	Absent	Not record

since the periodical's inception in 1920 there have been 22 reports. Of these 15 were patients with dermatitis factitia, of which 9 showed an absence of both corneal and pharyngeal reflexes.9 There was an absence of the corneal reflex in 2 cases in which the pharyngeal reflex was not recorded,10 and an absence of the pharyngeal reflex in 1 case in which the corneal reflex was not noted.11 Other reflexes reported in dermatitis factitia were a lowered pharyngeal reflex,12 and a positive pharyngeal reflex.13

There were 5 cases of neurotic excoriations reported. Two showed an absence of both corneal and pharyngeal reflexes.14 There were no cases in which both reflexes were present In 2 cases absence of the pharyngeal reflex was reported.15 One case showed partial anesthesia of both reflexes. 16 Two cases of trichotillomania were reported, in one of which both the pharyngeal and corneal reflexes were absent, 17 and in the other of which they were both present.18 There was also 1 case reported of generalized pruritus of the psychogenic type, which showed an absence of the pharyngeal reflex.19

#### Study of 375 Cases

In a study of the pharyngeal and corneal reflexes, we examined 375 individuals, of whom 15 had dermatoses of known psychotic origin, 24 had dermatoses in which there was considered to be a psychogenic factor, and 173 had various dermatologic diseases in which there was no psychogenic factor. In addition, we examined 163 normal individuals, including 65 first-year medical students at Cornell University Medical College, 60 first-year student nurses at the New York Hospital, and a number of interns, nurses, and physician's wives, whom, after careful consideration, we regarded as normal. The age range of 130 of these normal individuals was between 18 and 22 years. The age range of the other 43 was between 23 and 80 years.

#### Technic

The technic employed was as follows:

Pharyngeal Reflex.—The posterior wall of the pharynx was stroked with a tongue blade. In doubtful cases we exerted considerable pressure. A gag reaction constituted a presence of the reflex.

Corneal Reflex.—Each subject was seated on a chair facing directly forward, and asked to look upward and to the right, while the examiner, standing to the subject's left, touched the cornea of the left eye with a fine wisp of cotton. The examiner approached from the left side so that the subject was not aware that the test was being performed. A blink constituted a presence of the reflex. In a doubtful case the right eye was also tested. This description of the technic of the corneal reflex is essentially that described by McKendree.4

Each patient, except our normal subjects, was questioned to determine manifestations of hysteria other than dermatologic, and was excluded from the study in the event of evidence suggesting other forms of hysteria: We felt that our normal subjects were such a carefully selected group that it was unnecessary to question them regarding symptoms of hysteria.

#### Results of Tests

As noted previously, the subjects have been considered in four groups.

1. Of the 15 patients with dermatoses of known psychogenic origin (Table 2), 3 who

TABLE 2 -15 PATIENTS WITH DERMATOSES OF KNOWN PSYCHOTIC ORIGIN

				Refl	
Initials	Sex	Age	Disease	Pharyngeal	Corneal
M. T.	Female	45	Dermatitis factitia	Present	Absent
C. L.	Female	35	Dermatitis factitia	Absent	Absent
E. C.	Female	55	Dermatitis factitia	Absent	${f Absent}$
K. H.	Female	35 55 45	Dermatitis factitia	Absent	${f Absent}$
M. M.	Female	39	Neurotic excoriations	Present	Present
E. M.	Female	36	Neurotic exconstions	Present	Present
LH	Female	42	Neurotic exconstions	Absent	Absent
E. M. L. H M. K.	Female	30	Neurotic excoriations	${f Absent}$	Absent
A. L	Female	48	Neurotic excoriations	Absent	Present
A. O.	Female	68	Neurotic excoriations	Absent	Present
HE	Female	22	Neurotic excoriations	Present	Absent
мв	Female	22 35	Trichotillomania	Present	Absent
L G	Male	32	Psychogenic pruritus	Present	Present
W. F.	Male	58	Psychogenic pruritus	Present	Present
W. F. A. S.	Female	50	Psychogenic pruritus	Absent	Absent

suffered from dermatitis factitia showed an absence of both pharyngeal and corneal reflexes and 1 showed a pharyngeal reflex, and an absent corneal reflex. Two patients with neurotic excoriations showed the presence of both reflexes, 2 patients an absence of the pharyngeal and the presence of the corneal reflex. and 1 patient a pharyngeal and an absent corneal reflex. One patient with trichotillomania showed a positive pharyngeal and an absent corneal reflex. Two patients with psychogenic pruritus showed the presence of both reflexes, and a third case showed an absence of both.

2. The diseases in which there is considered to be a psychogenic factor (Table 3) included 6 cases of localized neurodermatitis, of which 3 showed the presence of both pharyngeal and corneal reflexes, and 3 showed positive pharyngeal and negative corneal reflexes. There were 6 patients with generalized neurodermatitis of whom 4 showed the presence of both reflexes, 1 showed an absence of both reflexes, and the other had a positive pharyngeal and a negative corneal reflex. Of four patients with alopecia areata, 2 showed a presence of both reflexes, and 2 showed positive pharyngeal and negative corneal

reflexes. Of 2 patients with chronic urticaria one showed a presence of both reflexes, and one an absence of both reflexes. In 2 cases of lichen planus both reflexes were positive. There were 4 cases of pruritus ani, in 2 of which both reflexes were present, and in the other 2 the pharyngeal reflex was positive and the corneal negative. We excluded from this group cases of urticaria and pruritus ani in which we were able to determine causative factors other than psychotic.

3. Our 173 miscellaneous dermatoses with no psychogenic factors (Table 4) included many different diseases in individuals of both sexes ranging in age from 8 to 81 years. We found that sex and age are apparently not factors in the reaction to the pharyngeal and corneal reflexes. We found the pharyngeal reflex absent in 46 cases, or 26.6 per cent of the total. The corneal reflex was absent in 72 cases. or 41.6 per cent. Both reflexes were absent in 16 cases, or 9.2 per cent.

In 56 cases, or 32.3 per cent, the corneal reflex was absent and the pharnygeal reflex present, and in 30 cases or 17.3 per cent the pharyngeal reflex was absent and the corneal reflex was present.

TABLE 3 -24 Patients with Dermatoses in Which There Is Considered to Be A Psychogenic Factor

Initials				R	eflexes
O Z	Sex	Age	Disease	Pharyngeal	Corneal
M. G	Female	36	Localized neurodermatitis	Present	Present
H L	Female	40	Localized neurodermatitis	Present	Present
H. K. H. K.	Female	45	Localized neurodermatitis	Present	Present
j. T.	Female	49	Localized neurodermatitis	Present	Absent
Č D	Female	30	Localized neurodermatitis	Present	Absent
ĂŘ	Female	57	Lozchzed neurodermatitis	Present	Absent
T T C R B E L K	Female .	16	Generalized neurodermatitis	Present	Present
Ĺĸ	Male	16	Generalized neurodermatitis	Present	Present
J i.	Male	19	Generalized neurodermatitis	Present	Present
C.E	Female	12	Generalized neurodermatitis	Present	Present
J T	Male	34	Generalized neurodermatitis	Absent	Absent
H. N.	Female	12	Generalized neurodermatitis	Present	Absent
Ñ. Ĥ А. F. М. Ď.	Female	42	Alopecia areata	Present	Present
A. F	Male	11 37	Alopecia areata	Present	Present
M. D	Female	37	Alopecia areata	Present	Absent
Α. Α.	Male	41	Alopecia areata	Present	Absent
A. S	Female	31	Chronic urticaria	Present	Present
M. K.	<u>F</u> emale	40	Chronic urticaria	Absent	Absent
A. P	Female	50	. Lichen planus	Present	Present
A. A.	Female	58	Lichen planus	Present	Present
A. A. A. P	Male	41	Pruntus ani	Present	Present
ŗ.Ŗ.	Female	12 33	Pruntus am	Present	Present
L I	Female	33	Pruntus ani	Present	Absent
	Female	59	Pruritus ani	Present	Absent

TABLE 4.-173 Miscellaneous Dermatoses with No Psychogenic Factor

Results of Testing Pharyngeal and Corneal Reflexes	Number of Cases	Percentage of Total Cases Examined
Pharyngeal reflex absent Corneal reflex absent	$\frac{46}{72}$	$\frac{26.6}{41.6}$
Both reflexes absent	16	9.2
Absent pharyngeal and present corneal reflex	30	17.3
Absent corneal and present pharyngeal reflex	56	32.3

4. An analysis of the 163 normal individuals who were tested (Table 5) showed an absence of the pharyngeal reflex in 53 cases, or 32.5 per cent, and an absence of the corneal reflex in 66 cases, or 40 per cent. Both reflexes were absent in 28 cases, or 17.2 per cent. In 25 individuals, or 15.3 per cent, the pharyngeal reflex was absent and the corneal reflex was present and in 38 instances, or 23.3 per cent, the corneal reflex was absent and the pharyngeal was present.

The percentage of absent reflexes in the medical students and the student nurses was approximately the same. This again suggests that sex is not a factor in the presence or absence of those reflexes.

#### Conclusions

A study of the pharyngeal and corneal reflexes in 375 individuals has convinced us that these reflexes are absent in many patients with dermatoses not of psychogenic origin and in many normal individuals.

The 4 patients with dermatitis factitia whom we examined all showed absent corneal reflexes, and 3 of them showed absent pharnygeal re-The other psychogenic dermatoses showed approximately the same percentage of absent reflexes as did our control cases. The number of psychotic cases in our series is, of course, small.

We believe that the simplicity of the technic employed in eliciting the pharyngeal reflex rules out any error in our study of this reflex. The comparatively higher percentage of absent corneal reflexes than of absent pharyngeal reflexes which we noted suggests that the more difficult technic of the former test may be a factor. The amount of pressure exerted on the cornea with the wisp of cotton, and the method of approach to the subject may be responsible for some variation in the results of the test, but it should not appreciably alter the interpretation of our findings.

Our study suggests that an absence of the pharyngeal and corneal reflexes is of limited significance in establishing a diagnosis of psychotic dermatosis, since these reflexes are frequently absent in normal persons and in patients

TABLE 5 .-- 163 NORMAL INDIVIDUALS

Results of Testing Pharyngeal and Corneal Reflexes	Number of Cases	Percentage of Total Cases Examined
Pharyngeal reflex absent Corneal reflex absent Both reflexes absent	53 66 28	32.5 40.0 17.2
Absent pharyngeal and present corneal reflex Absent corneal and present pharyn- geal reflex	25 38	15.3 23.3

with dermatoses not of psychotic origin. Since our review of the literature and the findings in our own cases of dermatitis factitia show a high percentage of absent reflexes, we believe that a presence of these reflexes is evidence against this diagnosis.

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#### Discussion

Dr. Howard Fox, New York City-The authors have made a real contribution in studying the action of the pharyngeal and corneal reflexes in a large number of normal persons, including those with dermatoses that had no apparent psychogenic background. I was astonished to hear that partial or complete absence of one or both of these reflexes was demonstrated in such a large proportion of supposedly normal people. The authors stated that in 173 persons with miscellaneous nonpsychogenic dermatoses the pharyngeal reflex was absent in 26.6 per cent and the corneal in 41.6 per cent and in 163 normal persons, the pharyngeal reflex was absent in 32.5 per cent and the corneal in 40 per cent. In this connection, I would like to mention the statement of Dr. L. A. Salmon that at the Neurological Institute of New York little or no significance is attached to a bilateral diminution or absence of such reactions from a diagnostic standpoint of either organic or functional disease of psychogenic origin. Dr. Salmon was impressed, however, with the rather high percentage of absent reflexes in cases of neurotic excoriations and also in the so-called normal persons.

As the authors state, the number of their cases of known psychogenic origin was small. This number included two cases of pruritus which I would eliminate, as its cause would be difficult to prove. The thirteen remaining cases included dermatitis factitia. neurotic excertations, and trichotillomania. All except two of these had absence of one or more reflexes. At least, this proportion of absent reflexes was much higher than that in normal persons. I assume that intheir list of cases of dermatitis facitita. they did not include cases of definite malingering which might not have a psychogenic basis.

I would criticize their list of 24 cases "in which there is considered to be a psychogenic factor." This included localized neurodermatitis, disseminated neurodermatitis, alópecia areata, lichen planus, and pruritus ani. I would exclude all of these except disseminated neurodermatitis (atopic eczema) and even in this disease the psychogenic factor can hardly be considered to be the basic cause of the disease. Localized neurodermatitis, a synonym of which is lichen simplex chronicus, has never been proved to have any psychogenic factor and the same is true of alopecia area and lichen planus, the cause of these diseases being unknown. Pruritus ani has so many possible causes that this disease could also be omitted. Of the six cases of disseminated neurodermatitis, the reflexes were normal in four.

I looked over my private cases of neurotic excoriations, a disease which is unquestionably of psychogenic origin. I was disappointed that I could find only 15 cases in which I had recorded the presence or absence of the reflexes in question. Of my 15 cases, 13 were women, of whom 9 were unmarried.

The average age of all the patients was 36. It was found that the pharyngeal reflex was either completely absent or greatly lessened in 80 per cent of the cases, and the corneal reflex was absent or sluggish in 77 per cent of thirteen cases, it being difficult to determine this in two cases. Finally.

there was a more or less complete absence of one or both reflexes in 86.6 per cent of my cases. Only 2 of the 15 patients showed normal reflexes. I assume that in testing for corneal reflexes the authors touched the edge of the cornea, and not the pupil. which would give an abnormally high percentage of reflexes, by acting through the second instead of the fifth nerve.

My conclusion from the limited number of cases of the authors and of my own is that absence of one or both reflexes, while not pathognomonic, is at least of some diagnostic value in neurotic excertations.

Dr. Graham-I wish to thank Dr. Fox for his discussion.

Dr. Lewis and I have listed cases of localized neurodermatitis, alopecia areata, lichen planus, and pruritus ani as "dermatoses in which there is considered to be a psychogenic factor" because this opinion is held by a number of dermatologists, and is recorded in some of the standard textbooks on dermatology. We are not convinced that this relationship necessarily exists. In reporting cases of pruritus ani we attempted to exclude those in which there might be any organic or metabolic basis.

As the technic employed in testing the corneal reflex is subject to some variation, we discussed this matter with two of the senior residents at the New York Eye and Ear Infirmary, Dr. Gordon J. Cole, and Dr. Hunter Romaine, and found that we had employed the correct technic. They volunteered to check our findings by testing the corneal reflex of subjects in the eye clinic. They tested 123 patients, most of whom were refraction cases. The others were patients with no diseases of the cornea and persons who visited the clinic in order to have a foreign body removed from the eye. Forty-one subjects, or 331/z per cent, showed an absence of the corneal reflex. Dr. Cole had previously been impressed with the considerable number of persons he had examined who had not been conscious of a foreign body on the cornea. These patients had noted only redness of the conjunctiva, and a number of them had not visited the clinic until several days later when the inflammation became pronounced. He regarded this as an indication that the corneal reflex was absent.

The findings in this study suggest the need for challenging some beliefs often noted in the medical literature, and taken for granted. The librarian at the New York Academy of Medicine remarked when we borrowed Birck's paper on a study of the pharyngeal reflex in normal persons, that it was the first time the copy had been taken out of the library since it had been received in 1894.

With women taking the place of men in almost every classification, we haven't heard of any female auctioneers. Perhaps it's because a woman wouldn't want to start the sale of an article by shouting: "Now, gentlemen, make me an offer."—From "Home Town News," in the Wichita (Kansas) Beacon, Dec. 6, 1943

Medicine is the only profession that labors in cessantly to destroy the reason for its own existence—Bryce, 1914.

War is the only proper school of the surgeon.— Hippocrates, 415 B.C.

Heaven defend me from a busy doctor.—Welsh Proverb. Clipped from the Virginia Medical Monthly

### Case Report

### AGRANULOCYTOPENIA IN A PATIENT RECEIVING CINCHOPHEN AND SYNTHETIC VITAMIN K

WILLIAM B. RAWLS, M.D., New York City

ALTHOUGH cinchophen alone may produce agranulocytopenia, this case is reported because of the possibility that the agranulocytopenia may

have been caused by the synthetic vitamin K which was administered at the same time. A few cases of agranulocytopenia following cinchophen administra-

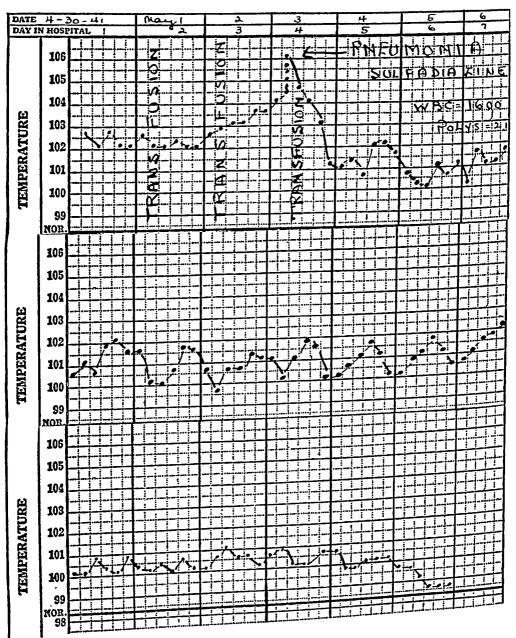


CHART 1

Date 1941	Time	White Blood Count	Segmented Polymorph- onuclears	Non- Segmented Polymorph- onuclears	Lymph- ocytes	Red Blood Count	Hemo- globin (Per- centage)	Plate- lets	Treatment
4/30	11:15 A.M.	1,500	0	6	94	3,470,000	62		Campolon-30 cc. in 4
5/1	9:30 A.M. 4:30 P.M.	850 1,200	10 11 7	18 4	72 85	3,040,000 3,580,000	60 74		Vitamin B-100 mg. in- tramuscularly o.d.
5/2	9:00 A.M. 4:00 P.M.	900 1,050	13	4 3 14"	72 85 10 73				Yellow bone marrow—1 dram every 4 hours for 4 days
5/3	9:00 A.M. 4:00 P.M.	1,600 1,700	9 14*	12 15	78 71 61	3,900,000 4,090,000	72 78		Transfusions: 5/1-500 cc. 5/2-350 cc.
5/4 5/5	6:00 P.M. 9:30 A.M.	4,500 4,500	14* 22 32	15 17 27	61 41	4,210,000	ŻĜ	640,000	5/3-350 cc. *Sulfadiazine-15 grains every 4 hours for 4 days
5/6 5/7 5/8	9:30 a.m. 9:30 a.m. 9:30 a.m.	6,750 9,800 11,950	33 45 55	22 30 21	44 24 24	4,660,000 4,670,000	82 82	490,000 352,000 353,000	every 4 hours for 4 days
5/6 5/7 5/8 5/9 5/10 5/12 5/13 5/14 5/15	10:00 a.m. 10:30 a.m. 9:30 a.m.	13,450 16,950 18,500	50 63 63 68	26 26 22	$\frac{24}{11}$	4,140,000	:: 82		
5/13 5/14 5/15	1:00 P.M. 1:00 P.M. 10:00 A.M.	16.550	68 68 69 70	20 20 17	15 12 11 14 13	******	•••		
5/19	9:30 а.м.	14,700	70	17	13		::	284,000	

tion are cited in the literature, but Plum,1 in his book on the subject, could find only one instance directly traceable to cinchophen. This drug was administered to more than 500 patients over a period of years,2 some of them receiving natural vitamin K in addition, and frequent blood studies were done on all patients. No cases of agranulocytopenia were observed during that time. In view of the negative results in such an extensive series, it is possible that the agranulocytopenia which developed in the present case may have been produced by the

#### Case Report

synthetic vitamin K

A woman, aged 45, with severe rheumatoid arthritis of several years' duration, had taken aspirin, phenacetin, and neocinchophen at various intervals without any signs of toxicity. Beginning April 22, 1941, she received 71/2 grains of cinchophen three times a day, and 1 mg. of 2-methyl-1,4 naphtho-quinone (synthetic vitamin K) three times a day for six days, after which she complained of severe fatigue and general malaise, and had a temperature of 101 F. The medication was discontinued by the patient and she was not seen until three days later. At that time she complained of severe weakness, marked fatigue, and anorexia. The temperature ranged from 100 to 102 F. She was admitted to the hospital, where a blood count revealed agranulocyto penia.

Chart 1 shows the progress and treatment from April 30 to May 19. On May 7, the patient developed a high temperature, reaching 106.5 F., and was found to have lobar pneumonia involving the middle and lower lobes of the right lung. Because of the severity of the pneumonia, she was given sulfadiazine on the advice of Drs. John Carroll and Rufus E. Stetson of New York City. There was continuous improvement in the agranulocyto-The patient made a full recovery and her blood count has remained normal. Chart 2 shows

produce agranulocytopenia and, since synthetic vitamin K contains this radical, it is reasonable to assume that it may produce agranulocytopenia. It is difficult to determine whether it was responsible in this case but, if so, this is the first reported instance of synthetic vitamin K causing agranulocytopenia. Since this preparation is widely used, the possibility

the temperature curve while the patient was hos-

It has been shown that the guinone radical may

#### References

of agranulocytopenia should be kept in mind.

1. Plum, P.: Clinical and Experimental Investigations in Agranulocytosis with Special Reference to the Etiology, London, K. H. Lewis and Co., Ltd., 1937.

2. Rawls, W. B.: New York State J. Med. 42: 2021 (Nov. 1) 1942.

pitalized.

#### THE HANDBOOK OF NUTRITION

The long awaited Handbook of Nutrition, published under the auspices of the Council on Foods and Nutrition of the American Medical Association, has just become available. As was announced when the first articles appeared in the Journal in 1942, all the articles have been brought together and revised and are now published in book form. The contents include such subjects as the fundamentals of modern nutrition, the essential elements in the diet, their sources in naturally occurring foods, and methods by which the greatest benefit may be derived from the consumption of cheap staple foods. Special attention is given to the dietary needs of special groups of the population. The book is invaluable as a reference for those in the field of nutrition and exceedingly useful to the physician who wishes to apply modern knowledge of nutrition in his practice.-J.A.M.A.

### Case Report

#### FEVER AS THE PRESENTING SYMPTOM OF BRAIN TUMOR

Bernard Brodsky, M.D., Lester Cohen, M.D., and Irving Gray, M.D., F.A.C.P., Brooklyn

TEVER of undetermined or obscure origin may sometimes be the only sign of disease, and the cause of such fever often taxes the ingenuity of the clinician. There is a paucity of reports in the literature on the occurrence of fever due to primary neoplastic disease of the brain. In an analysis of 51 cases of obscure fever, Keefer1 found tumor, irrespective of its location, to be the cause of an elevated temperature in 10 instances, but in no case did he report fever due to brain tumor. We are reporting this case, illustrating a fever which was present for eight weeks as the chief manifestation of a brain tumor, from the point of view of the internist rather than from that of the neurologist.

Case Report

L. B., Hospital No. 98044, a white woman 36 years of age, was admitted to the Coney Island Hospital on June 18, 1942, with the complaint of "fever and pains in the head for three weeks." This illness dated back to about three weeks prior to admission, when the patient "felt hot and the temperature ranged between 100 and 101 F., morning and night." There also had been more or less continuous pains "in the frontal region, which radiated around the eyes and which were relieved by aspirin and cold compresses." The pain recurred at intervals during the day, was predominantly left-sided, and was relieved by lying down. The patient had become increasingly fatigued. She had occasional diplopia and "spots before the eyes." She had been wearing eyeglasses for the past fifteen years. There were no symptoms referable to the cardiovascular, pulmonary, gastrointestinal, or genitourinary systems, the past history was essentially negative, and menses were normal. This woman was a Para I, gravida I, with one child 17 years old and in good health. Six years ago, the patient had had an operation for ovarian cysts. On one occasion (time not known), the patient was

told that she had sugar in the urine.

Family History.—Both the father and the mother of the patient were alive and well, but one brother had pulmonary tuberculosis. The patient's husband had bad ann tuberculosis to use here. band had had open tuberculosis ten years before. After repeated examinations, there was no evidence that the patient had developed pulmonary tuber-culosis. There was no familial history of diabetes,

carcinoma, or cardiovascular disease.

Physical Examination on Admission.—The temperature was 101 F.; pulse, 90; respirations, 20; blood pressure, 110/72. The patient rested quietly in bed, not acutely ill. There was no trace of cyanosis or dyspnea. Examination of the eyes showed the pupils to be equal and regular with normal reaction to light and accommodation. Fundi revealed no abnormal findings. There was no evidence of papilledema or hemorrhage. Examination of the ears showed the tympanum to be intact and of a

pearly-gray color. There was slight congestion of the nasal nucous membrane and of the pharynt. Oral hygiene was fairly good. The tongue was normal in appearance, and the thyroid was not enlarged. No abnormalities were found upon extensive. amination of the lungs and heart. The extremities revealed normal function of all the joints, with no evidence of any swelling or tenderness. No rash or petechiae were found in examining the skin. Liver and spleen were not felt. There was no abdominal tenderness or muscle rigidity. On neurologic examination, there was no evidence of strabismus, nystagmus, or diplopia. The corneal reflexes were intact, and no trigeminal sensory changes were observed. Neither was there facial weakness, either peripheral or central. The palatal reflexes were intact and the palatal curtains were symmetrical. The tongue protruded in the midline, but there was no atrophy or fibrillation. No weakness of the muscles supplied by the n. accessorius was observed. The visual fields were grossly normal by confrontations. The muscle strength was normal in all extremities. All the tendon reflexes were elicited, although reinforcement was necessary. The abdominal reflexes were intact, and there was no muscle rigidity. Neither the Hoffmann nor the Babinski sign was elicited. No ataxia (cerebellar) was elicited in any extremity. Sensory status was hardened and the sensory status was physiologic throughout, with no impairment of the stereognosis.

Laboratory Studies.—Repeated examination of the urine for red blood cells was negative, but cultures of the urine showed Staphylococcus albus. Fecal studies and culture were negative for ova parasites and pathogens. Serologic tests for syphilis were negative. Blood culture studies made on several occasions were consistently negative, and blood chemistry studies were normal. Blood Widal tests for typhoid "O" agglutination was: positive, 1:20 through 1:160; negative, 1:320. Test for typhoid "H" was: positive, 1:20 through 1:80; negative, 1:160 through 1:32. Proteus OX19 was positive in 1:20. but it was negative in higher was positive in 1:20, but it was negative in higher titers. Agglutinations for paratyphoid A and B and

brucella were negative in 1:20 through 1:320. N.Y.C. Board of Health Studies.—On June 24 the Widal test was positive in "O" antigen through 1:40. Agglutinations were negative for paratyphoid A and B, brucella, and the typhus group. The sedimentation rate on lune 26 mes rules 152 with a sedimentation rate on June 26 was plus 158, with a maximum fall of 13 mm. (grossly elevated) in a five-minute interval. An electrocardiogram was made on June 25. There was a tendency toward left axis deviation; PR interval was 0.20 second. There was also a suggestion of myocardial damage (voltage tended to be low).

Radiological Study.—A chest examination made on June 19 was negative.

No abnormalities were demonstrated in a study of the skull, and no evidence of increased intracranial

The frontal cells of the sinuses were large, but pressure could be seen. the right side was not appreciably infiltrated or

From the Medical Service of Dr. Irving Gray, Coney Island Hospital, Brooklyn.

thickened. Both sides were aerated. The left side was not appreciably thickened. The ethmoids were bilaterally infiltrated. The sphenoid bones and the antra were also aerated. Turbinates showed a moderate hypertrophy on the left side. Sella turcica were normal, and the posterior pharvngeal wall was

There was no evidence of bone or joint pathology or paravertebral mass in the dorsal and lumbar spine. The paranasal sinuses, examined again on July 7, showed no change from the previous report.

Blood Count.-Blood counts on admission were as follows: white blood cells, 13,400 per cu. mm., with 87 per cent polymorphonuclear; red blood cells, 4,100,000 per cu. mm. Hemoglobin was 78 per

On June 27, ten days after admission, the leukocytosis still persisted-12,400-and the patient

still had a polynucleosis (80 per cent).

Clinical Course.—The patient continued to have a low-grade fever rarely exceeding 101 F., with a distinct facial pallor evident at all times. Repeated blood culture studies were sterile. At no time were there any petechiae found in the mucous membrane or in the skin, nor were there joint or skin abnor-Because of some contact the patient may have had with her husband, who was known to have had active pulmonary tuberculosis ten years previously, x-ray studies of the chest (and tuberculin tests) were made, and a diagnosis of tuberculosis was excluded. (The peculiar pallor of the skin at times seemed to be tinged with a light brown, cafe ou lait appearance. In the differential diagnosis, pulmonary tuberculosis, subacute bacterial endocarditis, atypical verrucous endocarditis, sinusitis, etc., were all excluded. The rapid sedimentation rate persisted, but the cause of the fever remained undetermined until about three weeks after admission to the hospital, when examination of the heretofore negative fundi revealed the presence of a bilateral papilledema of 2 or 3 diopters. Tenderness was elicited on percussion of the frontal area of the calvarium in the sagittal plane. There were no abnormal neurologic findings. A spinal tap was performed with the following results: initial pressure: 300 mm. water, 10 cc. withdrawn, final pressure, 148; Ayala's index (final pressure): initial pressure (×10) was slightly less than 5. This was considered strongly indicative of an expanding intracranial lesion. Chemical and microscopic findings in the spinal fluid were otherwise essentially within normal limits.

The bilateral papilledema became increasingly evident, although no adequate localizing diagnosis was made. On July 13, twenty-six days after observation at the Coney Island Hospital was begun, the patient was transferred to the Neurological Service of Dr. Jefferson Browder at the Kings County Hospital. At this institution, examination by the neurologic staff, including perimetry, revealed no abnormal neurologic signs other than the bilateral papilledema. Ventriculography showed a definite defect of the frontal horn on the left side, and a sphenoid ridge tumor was suspected. A left frontotemporal bone flap was reflected, and a large, tangerine-sized meningioma was exposed, occupying the inner half of the left sphenoid ridge and extending into the middle and anterior fossae. The tumor was completely removed, with amputation of the left frontal lobe. The pathologic report was "meningioma of the fibroblastic type." After a very start was very stormy postoperative course, the patient was di-charged, recovered, on September 10, 1942. The

temperature returned to normal after the operation and has remained normal since.

On December 7, 1942, three months after the operation, the patient was examined again. headaches had disappeared, she felt much stronger, The temperature was and had no complaints. 97.9 F., and the pulse rate 102. (The patient stated that she felt "nervous.") Examination of the fundi revealed a linear hemorrhage nasal to the left disk. (There was no evidence of papilledema.) Although the sedimentation rate was still elevated, the blood count was within normal limits.

#### Discussion

For a period of three weeks prior to admission to the hospital, and for three weeks after admission, the patient continued to have a fever of obscure origin. At no time were there any localizing signs of disease pointing to the central nervous sys-

Without the use of the opthalmoscope, the encephalon would not have been suspected of being the seat of disease. Although the tumor was located in the sphenoid ridge, clinical or radiologic signs generally considered characteristic of tumors in this region were not present, and localization was

achieved only by ventriculography.

An instance of prolonged fever and headache caused by a cystic gliomatous left frontoparietal tumor is reported by Marcolongo.<sup>2</sup> In this case, however, there were bouts of unconsciousness, somnolence, and mental torpor to point to the central nervous system. This author makes the statement that "frontal lobe tumors are accompanied by fever in 23 per cent of the cases." Bailey3 says that meningiomas, even when they compress the hypothalamus in advanced cases, do not seem to give rise to hypothalamic symptoms. It is difficult, in the case we are presenting, to impute that the fever was due to hypothalamic compression. Five cases of tumor involving the hypothalamus with associated hyperthermia are reported by Davison.4 One of these case reports describes an invasive meningioma of the base of the brain which destroyed part of the hypothalamus. before this patient had had an attack of fever and lethargy which was then diagnosed as encephal-

He subsequently developed localizing signs indicative of a lesion in the left side of the brain. The patient had a temperature, ranging from 98 to 102 F., for a period of three weeks. Mental changewere present, and the patient had episodes of laughing and crying. The only other finding that might have been considered of hypothalamic origin was the slight polycythemia.

Zimmermans also describes a case of fever associated with brain tumor. In this author's case, the patient had an intermittent fever of one year's duration. There were associated symptoms such as dyspepsia, anorexia, and weakness. As in the case we are presenting, the patient was studied for some systemic febrile disease. The diagnosis in Zimmerman's case was arrived at only by necropsy. The tumor was small and seemed to involve only the temperature centers in the hypothalamus.

From a review of these case reports and from our

own experience, we believe it reasonable to conclude that fever on occasions may be the only manifestation of brain tumor.

#### Summary

- 1. A case of meningioma of the sphenoid ridge with fever as the principal manifestation is reported.
- 2. The importance of ophthalmoscopic examination as a part in the diagnostic armamentarium of the internist is illustrated.

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2. Marcolongo, F.: Riv. di neurol. 5: 7 (Feb.) 1932.
3. Bailey, Percival: Proceedings of the Association for Research in Nervous and Mental Disease 20: 713 (Dec.) 1939.

4. Davison, Charles: Disturbance of Temperature Regulation in Man, Chap. 30, p. 774.
5. Zimmerman, Harry Martin: Temperature Disturbances and the Hypothalamus, Chap. 31, p. 824, in the Hypothalamus and Central Levels of Autonomic Functions, Proceedings of the Association for Research in Nervous and Mental Disease, December, 1939, Vol. 20. Published by Williams & Wilkins Co., Baltimore, Md., 1940.

#### OLD NOSTRUM RIDES AGAIN

For some reason or reasons, perhaps connected with public psychology in war or in some way related to the burden of taxes, radio has rejuvenated patent medicines. In a great many of the better spots of the better broadcasts one is assailed by authority-timbred tones which bid the public strengthen itself with some special brand of vitamins or which emphasize the value of a particular panacea that, because it is like a shotgun prescription, will remove hair or curl the whiskers, as the sex might be. Or again the same long-suffering public is exhorted to purify its blood, to waken its liver, to unclog its nostrils, to move its bowels. Often too, these succulent radio voices add a touch of mystery and dignity by the mouthing of chemical terms. They set forth anatomic relationships clearly enough to be understood by a child, but not by an anatomist; and too frequently an amazingly simple physiology is inferred. Torch singers and sopranos take up the refrain and drag into millions of living rooms little songs and jingles, some of them very catchy too, all to the glory of self-dosage; and often it is only through the courtesy of some proprietary that one gets spot news or good music or a thrilling drama of the air. Some of these radio prescriptions are new and sail confusingly in the wake of modern Others are so hoary in their iniquity that the medical profession was under the impression they had been laid to rest by federal laws as to claims and labels, and newspaper ethics as to advertisements. But they live again on the radio; cut a little smoother and thinner, but the same old sausage.

Regardless of the particular proprietary that sponsors and irrespective of the broadcasting company, or of script writers, performers, and announcers, there is a strong tendency in most programs to lead listeners so easily and pleasantly down the path of self-diagnosis that self-treatment seems quite logical; and the uninitiated can hardly wait to get to the drugstore. From an advertising standpoint, no doubt, such an outcome spells shining success: there is something to be sold, and, by the eternal, it is being sold; and the contracts go rolling along. But from the standpoint of the medical profession and of those interested in the public health

this radio-nostrum alliance is a discouraging and alarming phenomenon. How or when the situation may be rectified, no one knows, for both interests are powerful. The radio industry is literally bursting at the seams with vigor and ambition, possessing in full measure both the promise and crudeness of youth. It is apparently willing and able financially to fight for what it believes to be its prerogatives, and judged on the basis of past programs, these prerogatives include the right to further in the United States a patent medicine-guzzling citizenry. patent medicine industry for its part is no babe in the woods when it comes to taking care of itself. It knows just where effective pressure may be put and just how to put it; it knows just where the legal ice is thin, and, correspondingly, it knows where it may safely do a therapeutic razzle-dazzle.

For the above reasons and others, one may not hope for any early restrictions in radio advertising of patent medicines. It is too profitable an alliance for any of the high contracting parties to permit the public to "infringe" and, further, it is tied up with that reform-defying, resistance-smashing, and magic institution, Commerce. And ladies and gentlemen, when majestic Commerce enters into any situation the lowly and poor relations of government and society had better seek shelter, for public health history is replete with records of the pressures that commercial interests can bring, such as denial of the presence of an epidemic or insistence upon the right to sell inferior goods, including drugs, to the unsuspecting at home and abroad. Legislators, health officers, physicians, and others interested in the public welfore home than the public welfore home the public welfore home the public welfore home the public welfore home the public welfore the pu fare have thus learned that in any clash between public health and Commerce, the public is willing to take a long and thorough drubbing before it rises in its wrath. Fortunately, but usually at long last, the Right may hope to prevail. In the meantime, and in the present radio patent medicine situation, one is inclined to ask, "How long, O Lord, how

And now the least distressing part of the situation is that these patent medicine shows, in their radio excellence, put to shame the sincere but nevertheless dull efforts of conventional health educaton.—Editorial in Am. J. Pub. Health, February, 1944

# ARMY TRAINS MEN WITH POOR VISION FOR LIMITED MILITARY SERVICE

About a thousand men a week, a majority of whom were rejected for active military service because of defective vision, now are entering the Army's Limited Service School for special training, according to the Better Vision Institute. Men with visual shortcomings of the school which with the school school with the school with t visual shortcomings entering the school, which gives a months's intensive training, outnumber two to one the men with all other defects combined. These men

with poor eyesight have only about one-tenth to one-twentieth of normal vision. Although one out of seven of the men with nonvisual shortcomings are rehabilitated for general military service, very few of the men with eye defects are reclassified for general service. By utilization of the men from the general should be a subset of the service of the se school, thousands of other soldiers have been released for combat service.—Connecticut State M. J.

### Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.

#### Tropical Medicine

A SINGLE lecture has been arranged by the New York State Department of Health and the Medical Society of the State of New York for the Saranac Lake Medical Society. It will be given on April 5, 1944, at 8:00 p.m. in the John Black Room, Saranac Laboratory, Saranac Lake.

The title of the lecture is "Mosquito-Borne Diseases."

The lecture will be delivered by Morton C. Kahn, Ph.D., associate professor of public health and preventive medicine at Cornell University Medical College.

#### REPORT ON AMENORRHEA IN WOMEN INTERNEES

From the Santo Tomas Internment Camp in Manila, in the first scientific paper from enemy-occupied territory to appear in medical literature, comes a report of war amenorrhea... in a group of American and British women internees, probably due to severe psychic shock, worry, and fear. An outbreak of the condition in central Europe during and after the last world war was attributed to malnutrition.

The study is reported in the Journal of the American Medical Association for February 12 by Frank E. Whitacre, M.D., Peking, China, and Benjamun Barrera, M.D., Manila, P.I., with the assistance of Tirso N. Briones, M.D., Purificacion S. Suaco, B.S., and Alicia De La Paz, M.D. The report comes from the College of Medicine and the Institute of Hygiene, University of the Philippines, and was brought back by Dr. Whitacre on the "Gripsholm" last December. Before the war he was professor of gynecology at the University of Peking Medical School. His present address is Sylvania, Ohio.

"Soon after our arrival at the Santo Tomas Internment Camp in Manila, Philippines, on January 4, 1942," say the authors, "a high incidence of amenorrhea was noticed. In the middle of June there were 3,134 internees, of whom 1,172 were women. All but 26 of the latter were American or British. Of the 1,172 there were 1,042 between the ages of 14 and 45 years. By April it was evident that the high incidence of amenorrhea had persisted and among the 1,042 women of menstrual age we were able to find 125 patients with amenorrhea which had developed since the outbreak of the war. Many complained of irregular menstrual periods, but only a few patients suffering from menorrhagia were seen. The menses returned in many instances after several months' absence. . . . It was suspected that the cause of the amenorrhea was an endocrine one, and in spite of the shortage or absence of some reagents and laboratory animals, which limited quantitative determinations, it was decided to attempt to investigate the cause of this condition."

As the authors explain, there are many possible causes of secondary amenorrhea, including malnutntion, glandular disturbances, the wasting diseases, chronic intovications, emotional disturbances, and certain nervous and mental disorders.

Their concern, however, they point out, was with

amenorrhea as associated with war. European investigators of the condition as found in the last world war considered that the most important cause was a deficiency in one or more of the essential food factors.

"In many of our patients," the authors say, "the menses stopped abruptly after the first bombing of Manila or soon after internment and before a food deficiency could have any effect..."

deficiency could have any effect....."

The investigators say that inasmuch as it seemed clear that emotional shock had much to do with the cause of the widespread amenorrhea they thought it desirable to study the effect of such shock on excretions into the urine of sex hormones from the ovaries and of gonadotropin from the anterior pituitary gland. The latter is a substance which stimulates the gonads or ovaries.

In 2 selected patients they found estrogen or female sex hormone was absent from the urine but that pituitary-like gonadotropin was present.

Very little reference is made by the authors to the difficulties under which their investigations must have been made. They do explain, however, that "Owing to the limitation in the number of rats available, quantitative findings as to gonadotropin in the urine were not very satisfactory, but it was at least demonstrated to be present. If it had been present in excessive amounts, one would assume that permanent ovarian damage was present, which carries a poor prognosis for the patient.....

a poor prognosis for the patient....
"The ovaries not only are influenced by other endocrine glands but are under the control of the autonomic nervous system. As distinguished from the causes of amenorrhea as reported from central Europe during and after the first world war, malnutrition and other factors were not important in the causation of the war amenorrhea observed in Manila. We believe that severe psychic shock, worry, and especially fear caused a suppression of ovarian function by way of the autonomic nervous system, thereby removing a possible inhibitory effect of estrogen on the anterior lobe of the pituitary.

trogen on the anterior lobe of the pituitary.

"Most of the women ... overcame the difficulty themselves after a few months. Psychotherapy is within the bounds of good medical practice, and suggestion or assurance that no permanent harm will result from the condition] may have helped some of these patients..."

### Medical Legislation

Bulletin No. 5 Issued by the Legislative Bureau of the Medical Society of the State of New York, February 14, 1944

IT IS urged that you write immediately to your legislators protesting against the enactment of the chiropractic bill. You will find in the preceding bulletin (Bulletin No. 4, March 1 issue, page 527) a statement of the objectionable features. The chirality of the constitution of the co ropractors are very active this year. The committee that made an investigation of chiropractic in this State has issued a report which will be published and, when it is, we shall have copies available for distribution. We still hope that the full minutes of the hearings may be published.

#### New Bills Introduced

Senate Int. 637-Heller, in relation to the practice of certain nurses: Referred to the Civil Service Committee.

Comment: Same as Assembly Int. 803-Crews, reported in Bulletin No. 4.

Senate Int. 646—Baum; Assembly Int. 881—Stuart, transfers from Public Health Law to Criminal Code the provision for regulation and control of autopsies; strikes out the requirement that the coroner, after autopsy, shall file with the State Health Commissioner a transcript of pathologic appearances and findings with diagnosis of cause of

death. Referred to the Health Committees.

Comment: This bill was introduced at the request of the Department of Health. There seems to be no real reason for the coroner filing with the Department of Health the transcripts which the

law now provides.

Senate Int. 657-W. J. Mahoney, defines abortion and makes it a felony to commit abortion except a therapeutic abortion to save the life of the woman or to prevent impairment of health, to be performed only by a duly licensed physician in a recognized hospital after written opinions as to its necessity from two consultant specialists; a consultant making a false or misleading certificate shall be guilty of misdemeanor. Referred to the Codes Committee.

Comment: The Grievance Committee has

found it necessary that a better definition of abortion be drafted than the one in the law at the present time. This bill was introduced at the re-

quest of the Medical Society.

Senate Int. 663-Condon; Assembly Int. 961-Milmoe, prohibits use of certain titles or designa-tions of chiropodist or podiatrist or abbreviations thereof unless the person using the title is a duly licensed podiatrist and shall have met necessary requirements for the title or degree; the licensee may use the title "Doctor" or its abbreviation if qualified by the designation podiatrist or chiropodist. Referred to the Education Committees.

Comment: The Podiatry Law permits gradu-

ates of a full course today and those present practitioners who take a special course of study and examination under the Department of Education to write themselves as "Doctor of Podiatry." This bill would permit any of those podiatrists who are not included in the two groups mentioned above to write himself "Dr. —, Podiatrist," omitting the "of."

Senate Int. 688—Murray, relative to a person hold-

ing a city position in competitive class as a physician. Referred to the Civil Service Committee.

Comment: Same as Assembly Int. 186-Crews.

reported in Bulletin No. 3.

Senate Int. 798-Downey, requiring the Mental Hygiene Commissioner to provide for the treatment and care of honorably discharged veterans of World War II. Referred to the Finance Committee.

Comment: Same as Assembly Int. 768-Bor-

mann, reported in Bulletin No. 4.

Senate Int. 822-Griffith; Assembly Int. 1184-Stuart, strikes out the provision that the county tuberculosis hospital superintendent shall make personal examination of a patient applying for admission, or shall determine the financial ability of the person or his relatives to pay for care, and makes care and treatment a charge upon the county unlessome other county or city is responsible; the patient may be allowed to pay for care. Referred to the Internal Affairs Committee.

Senate Int. 827—Halpern, provides for taking testimony by commission, of physician, registered nurse, or automobile mechanic who rendered services to party in an action or special proceeding in New York City municipal court. Referred to the Codes Committee.

Comment: Senator Halpern carried this bill last year. It was introduced toward the close of

the session and killed in committee.

Assembly Int. 868—Austin, provides for commitment to and custody and discharge of mentally sick persons in state hospitals or licensed private institutions for observation, care, and treatment for three months before being adjudged insane. Referred to the Health Committee.

Mr. Austin carried this bill last Comment: year. It died in committee and was not approved

Assembly Int. 869-Austin, provides for the discharge of a patient of a state hospital if after a hearing the superintendent is satisfied that the patient is not violent or dangerous and has no homocidal or suicidal tendencies; only one application for discharge may be made within six months, and refusal to discharge shall be reviewable by the Mental Hygiene Commissioner with right of appeal to Supreme Court. Referred to the Health Committee.

Assembly Int. 968-L. Bennett, requires physicians to report cases of infantile paralysis to local health officer or state department; creates in State Health Department a division to investigate cause, mortality rate, prevention, and cure of infantile paralysis and allied diseases, and appropriates \$35,000.

Referred to the Ways and Means Committee.

Comment: Mr. Bennett sponsored this bill two

years ago. It was killed in committee and we op-

Assembly Int. 994—Brees, provides, in the absence of written notice of injury or death in workmen's compensation cases, or knowledge on the part of the employer of accident or death, that the burden is on the employer to prove that he was prejudiced by lack of notice or knowledge; increases from twelve to twenty-four months the time limit for contraction of disease, and requires the industrial commissioner to appoint expert consultants to act as a committee on occupational diseases, other than dust diseases, and to examine evidence in death benefit cases. Referred to the Labor Committee.

Assembly Int. 1033—Stuart, strikes out the provision for the charge upon the county of the care of inmates in state tuberculosis hospitals who are unable to pay or whose relatives are unable to pay. Referred to the Health Committee.

Assembly Int. 1110—Chency, requires State to reimburse cities, counties, and towns for 40 per cent of the cost of care of sick and disabled persons in hospitals for whom the municipality is responsible: \$5,000,000 is appropriated. Referred to the Ways and Means Committee.

Assembly Int. 1136—Barrett, eliminates settlement requirements as a factor in determining responsibility for public assistance and care, including hospital care; increases from 40 to 50 per cent the State reimbursement to localities for home relief; changes the amount of State aid for old age assistance, for aid to dependent children, and for assistance to blind. Referred to the Relief and Welfare Committee.

On Wednesday, February 9, the Legislature elected two regents to fill the places vacated by Dr. Madill's death and the expiration of Regent Bell's term of office. Mr. John P. Myers, of Plattsburg, was elected to fill the unexpired term of Dr. Madill and Dr. Stanley Brady, of New York City, was elected to succeed Regent Bell.

Senator Desmond asks for the continuance for another year of his committee created to study nutritional problems.

Assemblyman Moses asks for an appropriation of \$10,000,000 to provide for care of children of working mothers.

Assemblyman Shaw has introduced a bill which provides that the State Reconstruction Home at West Haverstraw shall be used for care and treatment of any crippled person, instead of persons under 21.

#### Action on Bills

Senate Int. 371—Burney.—Professions, license, military service. Reported.

Senate Int. 381—Wicks.—Butterine, etc.—sale to State institutions. Passed Senate; in Assembly Agriculture Committee.

Senate Int. 428—Baum.—Senator Baum has amended the bill which deleted from the Public Health Law that local boards of health must provide suitable places for treatment and care of persons with infectious diseases, by adding that they may provide for care and isolation of communicable diseases in a hospital or elsewhere.

Assembly Int. 176—Austin.—Mr. Austin has amended his bill, by adding as professional misconduct and cause for removal of a physician from the list of those authorized to render medical care under the Workmen's Compensation Law, the following: "That he has participated in the division, transference, assignment, rebating, splitting, or refunding of a fee for medical care."

Assembly Int. 461—Stuart.—Tuberculosis patients, state aid. Passed Assembly; in Senate Finance Committee.

Assembly Int. 602—Pillion.—Professions, license, military service. Third reading.

JOHN L. BAUER
WALTER W. MOTT
LEO F. SIMPSON
Committee on Legislation
JOSEPH S. LAWRENCE
Executive Officer

#### POSTWAR CIVILIAN FLIERS NEED EYES LIKE BIRDS

With thousands of persons planning to buy the promised postwar inexpensive airplanes, a new field of human activity will be opened up that will require more efficient eyes than those that have guided motorists in the past, says M. J. Julian, president of the Better Vision Institute.

President of the Better Vision Institute.

"Birds have the sharpest, keenest eyes of all creatures, including man. They need such eyes," says Mr. Julian. "Postwar civilian aviators must strive for bird-like eyes. They will have to train and tune up their sight if they are to avoid the fate of Icarus.

"Civilian fliers will find new conditions of seeing in air motoring. On land it is possible even with inefficient eyes to judge distances and speeds by objects along the route of travel, but in the air those guides will be lacking, or are to be seen only remotely in new perspective. A land-lubber taking to the air easily might misjudge the distance, speed, and direction of another plane. Peripheral seeing, or vision from the side, will have to be trained, for if a civilian flier should not see another plane approaching to cut across his path at 150 miles an hour, the result would be disastrous.

"In operating automobiles millions of persons

have been very neglectful of their eyes. Instead of keeping them tuned up to top efficiency, such persons have depended upon their brakes and the maneuverability of their cars to dodge hazards. But planes have no brakes comparable to the automobile's pneumatic four-wheel brakes. Also, because of the nature of flying, it will be hard to change in a split second the course of a plane traveling 100 miles an hour.

"In land motoring visual acuity, or sharpness of vision, is the principal concern of traffic officials in respect to eyes of drivers. That also will be important in the air motoring of the future. But other visual factors must receive greater attention," continues Mr. Julian. "Among these are eye coordination, muscle balance, and depth perception. The newly studied condition known as aniseikonia, in which the images on the two eyes are of different size, promises to be important. Studies indicate that this defect is not rare. In aniseikonia the eyes find it hard to see on a level line. This condition tends to cause a flier to tilt his plane in cruising and landing. Instead of bending mud-guards, an aniseikonie flier probably would break wings when landing."

#### Medical News

### J. A. M. A. Says Army Specialized Training Program Needed for Physicians

DISCUSSING the announcement relative to the discontinuance of the Army Specialized Training Program, the Journal of the American Medical Association for February 26 says that this program is the only technic that has been found for assuring an adequate supply of physicians for the Army, the Navy, and the civilian population regardless of the duration of the war. Pending decision as to the program, the Journal advises, every premedical and medical student is urged to continue with his studies and to realize that completion of his medical training is the best contribution he now can make to the war effort. The Journal says:

"Since the United States entered the war, the maintenance of medical education by provision of a continuous flow of premedical and medical students has given great concern to medical educators and to officials of the Selective Service System and of the Army and Navy medical departments. Just when the Army Specialized Training Program seemed to be functioning with reasonable satisfaction, a new announcement relative to its discontinuance has come forth; now everyone involved is again on the 'anxious seat.' As we go to press, apparently the fate of the Army Specialized Training Program is being decided. If a decision has not already been reached, those concerned should realize that thus far the Army Specialized Training Program is the only technic that has been found for insuring automatically an adequate supply of physicians for the Army, the Navy, and the civilian population regardless of the duration of the war.

"Vice-Admiral Randall Jacobs, Chief of Naval Personnel, states in a message to the Journal that the Bureau of Naval Personnel has recently received many inquiries concerning reports that the Navy College program may be discontinued. 'All inquirers have been advised that the Navy Department has no plans to discontinue this program. The U.S. Navy is still expanding. The urgent need for technically trained young officers continues, and the colleges and universities participating in the V-12 program are doing a splendid job of producing such officers. While changing wartime conditions may, from time to time, necessitate revision in the quotas for the program in order to conform with the needs of the service, the Navy does not contemplate discontinuance of the

program.'
"Whether the war ends soon or is greatly prolonged, both premedical and medical students must be kept in school in numbers sufficient to provide for the medical needs of the next few years. The transfer of the medical students now in the Army Specialized Training Program to the Enlisted Reserve Corps, on inactive duty, assigned to premedical or medical schools, may not meet the needs of the situation. Previously there was great urrest in the student body because these young men were constantly confronted with a feeling of inferiority in relation to those in uniform. Many premedical students dropped their work to enlist. Medical and premedical students naturally wish to be 'in the war.' Before the inauguration of the Army Specialized Training Program it was becoming increasingly difficult to persuade such students that their duty in this war was the pursuit of their premedical and medical studies to prepare them properly for military and civilian practice.

properly for military and civilian practice.
"Fortunately the officials of the Selective Service System have been aware of the potential threat to professional education. On February 15, 1944, Activity and Occupation Bulletin No. 33-6 was issued; this states definitely the status of students at this time before the Selective Service Boards. Briefly, a registrant who is in training and preparation as a medical student in a recognized medical school is to be considered for occupational deferment during the period of such professional course, provided he is a full-time student in good standing, he continues to maintain good standing, and the institution will certify that he is competent and gives promise of the successful completion of his course of study. A student in premedical training is to be considered for occupational deferment if he is a full-time student in good standing in a recognized college or university and it if is certified by the institution that he is pursuing a course of study in this preprofessional field and if he continues his progress he will complete such a preprofessional course of study within twenty-four months from the time of certification. A registrant serving in a hospital or institution giving a recognized internship is to be considered for occupational deferment as long as he continues such an internship but for a total period not to exceed nine months. A national quota has been established for premedical students which states that the number must not exceed 50 per cent of the total average number of students in schools of medicine in the years 1938-1939 and

"While the decision as to the Army Specialized Training Program hangs in the balance, every premedical and medical student is urged to continue steadfastly in his work and to realize that completion of his training in medicine is the best contribution that he can now render for the war effort."

#### Physical Fitness in Industry

A PHYSICALLY fit home front, with men and women workers who can produce a maximum in the war effort, is the aim of a nation-wide program now being put into operation by the Federal Security Agency to curb absenteeism and other handicaps resulting from physical deficiencies.

Federal Security Administrator Paul V. McNutt, in announcing a commission of thirteen outstanding Americans to carry on the program in industry, asserted that "It is most important that all working men and women in America realize that

physical fitness in industry is as vital to our cause as it is with our armed forces."

Chairman of the commission to stimulate physical fitness in industry is Dr. William P. Jacobs, president of Presbyterian College, Clinton, S. C., a long-time leader in education, public affairs, and athletics

and athletics.

Dr. Jacobs announced a comprehensive program which will be taken directly to the nation's industrial executives, labor organizations, and community leaders with the hope of enlisting their

support in encouraging every worker to participate

in regular habits and evercises.

"This drive for physical fitness embraces not only the obligation of the individual to keep him-or herself in good condition for sake of self, but it is a patriotic duty," Dr. Jacobs said. "Our men and women in the armed services are giving so much that certainly we at home can spare a little time to keep ourselves fit to do the jobs at hand.

"The need for such a program has been proved beyond any doubt by the high percentage of absenteersm which can be traced directly to physical

failures."

The industrial physical fitness commission already has prepared booklets to inaugurate the program. There is a brochure for employers and labor organizations outlining how physical fitness can be brought to every plant in the nation, a community booklet to be distributed through national headquarters of the American Legion, showing how patriotic, civic, and other groups can cooperate, and an individual handbook for the workers themselves, carrying illustrations and brief descriptions of the variety of sports, exercises, and body-conditioning habits which can be offered everywhere.

This manual for the individual describes more than fifty spare-time physical activities, plus variations of each, from which men and women of every age and condition can choose for enjoyment and physical development Basic points stressed include: medical care, fresh air, sunshine, balanced relaxation, good food, proper sleep, and regular exercise. The gamut of exercising opportunities from a good stretch upon awakening to the more vigorous forms of athletics, such as football and boxing, is

described and illustrated "We believe," Dr. Jacobs said, "that with

cooperation from employers, employees, and communities that great strides can be made in a short time to increase the health and effectiveness of the workers of America. It will, however, take cooperation. Unless industry and industrial workers give real support, we will continue to fight on the home front under the handicaps of physical deficiencies which could be remedied to an important

Further details on the program and copies of the physical fitness books can be secured by writing to the Committee on Physical Fitness, Federal Security Agency, Washington 25, D. C., or any of

its regional offices.

Members of the industrial Physical Fitness Commission, besides Dr. Jacobs, are: Dr. C. Ward Crampton, chairman, Subcommittee on Institutional Planning, Committee on Physical Fitness; Dr. Warren F. Draper, Deputy Surgeon General, U.S. Public Health Service; Kermit Eby, Assistant Director, Research and Education, C.I.O.; L. B. Icely, chairman, Athletic Goods Manufacturers' Association; Jonas A. McBride, vice-president, Victorial Legislative Representatives. National Legislative Representative, Brotherhood of Locomotive Firemen and Engineman; Colonel Leonard G. Rowntree, Chief, Medical Division, National Selective Service; Robert J. Watt, International Representative of the A.F. of L.; Dr. Sherwood Gates, Director, Recreation Division, Community War Services; Dr. Charles P. Mc-Cormick, president, McCormick and Company; Stewart C. Paxton, National Industrial Recreation Association and Maryland State Industrial Recreation Association; Collis Stooking, Deputy Assistant Director of Program Development, War Manpower Commission; and R. H. Weaver, Director, Industrial Relations, Falk Corporation.

#### County News

Albany County

Dr. Frederick L. Good, professor of obstetrics at Tufts College Medical School and prominent Boston obstetrician, addressed the scientific session of the Albany County Medical Society on February 23. The title of his address was "A New Concept of the Mechanism of Labor."

Discussion leaders were Drs. Joseph O'C. Kiernan,

Arthur Wallingford, and Thomas Gamble.\*

Dr. Joseph S. Lawrence, executive officer of the Committee on Legislation of the Medical Society of the State of New York, spoke in Albany at a meeting of the Capital District Dental Hygienists.\*

#### Cattaraugus County

Dr. Harriet Northrup, Ellicottville's first young woman to become a medical doctor, has left to take a position as a pediatrician in Chicago. She will be associated with Dr. John L. Reichert.

Dr. Northrup, is a graduate of Cornell University and the Women's Medical College of Philadelphia. She served her internship at and was affiliated with the Buffalo City Hospital for three years.\*

#### Cayuga County

Physicians of the county society with their wives (njoyed the annual joint dinner of the staffs of the Auburn City and Mercy Hospitals at the Osborne Hotel on January 28. The wives of thirteen physicians in military service were honor guests.

· Asterus indicates that item is from a local newspaper

Dr. Raymond F. Johnson presided. Dr. Harry S. Bull, president of the county society, spoke briefly, citing the fact that more than 50 per cent of the members of the Cayuga County Medical Society are with the armed forces.

Dr. G. Perry Ross, chief of staff at the Auburn City Hospital, was introduced, as was Dr. Anthony Spadaro, secretary and treasurer of the Mercy Hospital staff.

Dr. W. L. Dorr, serving at the Sampson Naval

Station, was present in uniform.

An interesting blackboard talk on figures and numbers from remote periods of history down to the present time was given by Dr. H. I. Davenport.\*

Erie County

Returned from a first-hand investigation of malaria and other tropical diseases in Costa Rica and Guatemala, Dr. Stockton Kumball will teach that subject in the University of Buffalo Medical School. Dr. Kimball, associate in medicine and pharmacology in the School, also spent two months in study at the Army Medical School.

Dr. L. Edgar Hummel, assistant dean of the

Medical School and assistant professor of medicine, is in Guatemala making a similar study, and Dr. Richard C. Porter, assistant in medicine and pharmacology and a member of the Meyer Memorial staff, who previously took the Army Medical School course, also will teach a course on tropical diseases, along with other specialists.

Dr. Oliver P. Jones has been appointed head of

the department of anatomy, succeeding Dr. Donald

Duncan, who resigned

Establishment of a research professorship in pediatrics in the University of Buffalo Medical School and of the Statler Pediatrics Research Department in the Buffalo Children's Hospital has been announced. Dr. Edward M. Bridge, associate professor of pediatrics at Johns Hopkins University for fifteen years has received the appointment. He will conduct research in drugs used in the treatment of epilepsy, the water and sugar requirement of sick children, the care of premature infants, and other pediatric problems. At the University he will encourage and promote research in the diseases of children and stimulate interest in research among medical students.

Dr. Grant L. Rasmussen has been appointed associate professor of anatomy and Dr. Harvey P. Hoffman, a lecturer in medical economics.

#### Kings County

At the annual meeting of the Brooklyn Urological Society, the following officers were elected: president, Oscar P. Schoenemann, M.D.; vice-president, Francis Osterhus, M.D.; secretary-treasurer, Isadore Kimmel, M.D.

Some one hundred physicians attended the annual dinner meeting of the Brooklyn Gynecological Society held on February 4 in the Hotel Bossert Alfred C. Beck, professor of obstetrics and gynecology at the Long Island College of Medicine, was the principal speaker. Dr. James W. McManus, president of the society, presided.\*

John P. Gallo has received his doctor of medicine degree at Kansas City University of Physicians and Surgeons, Kansas City, Missouri, and started his internship at St. Peter's Hospital, Brooklyn, on March 1.\*

#### Monroe County

Dr. Benedict J. Duffy, president of the Monroe County Medical Society, gave a talk on "Venercal Diseases" at the meeting of the Rochester Pharmaceutical Association on February 10. The talk was illustrated with motion pictures.\*

#### Nassau County

Dr. Benjamin White Seaman, of Hempstead, Long Island, surgeon, has just retired from active practice.

His retirement was the subject of an editorial in the Hempstead *Newsday* of February 4:

The retirement of Dr. Benjamin W. Seaman will be regretted alike by his colleagues of the medical profession and the people of Nassau County. Dr. Seaman has been the pre-eminent physician and surgeon of the County for a generation. He is a man of such high ability in his profession, so dignified and impressive in his appearance and conduct, and possessed of such estimable traits of character that members of the profession long ago accepted him as a natural leader.

Dr. Seaman began his career somewhat as a protégé of the late Dr. J. Ensor Hutcheson. Both men were originally from Rockville Centre and when Dr. Hutcheson retired it was not long before Dr. Seaman filled the position of leadership and eminence the former had held so long.

Dr. Seaman's contributions to the profession and to Nassau County have been manifold. He has given counsel and aid to many younger members of the profession... He was closely associated with the late Dr. Harry Warner in the establishment of the first professional building in Hempstead, which has resulted in that village's becoming an outstanding medical center and attracted outstanding physicians, surgeons, and specialists to this county.

He was a major influence in the establishment of Meadowbrook Hospital by Nassau County... and he has given outstanding service as police surgeon since the establishment of the Nassau County Police Department in 1926. He was chief of the surgical staff of Nassau Hospital, a member of the Medical Board of Mercy Hospital, and a member of the Board of Managers of Meadowbrook Hospital from its founding....

In 1938 Dr. Seaman received the first Distinguished Service Award given by the Nassau Daily Review-Star in reconnition of his many services to the people of the County.

If Dr. Seaman continues his association with the various hospitals and with the group at the Professional Building in an advisory capacity in spite of retirement from active practice his choice will be welcomed by all.

#### New York County

The monthly meeting of the county society was held on February 28 at 8:15 P.M. at the New York Academy of Medicine.

Three speakers took part in the scientific program, the subject of which was "Symptoms, Early Diagnosis, and Treatment of Cancer." Dr. Henry W. Cave covered the subject "From the Standpoint of the Surgeon," Dr. Howard C. Taylor, Jr., "From the Standpoint of the Gynecologist," and Dr. George Clinton Andrews, "From the Standpoint of the Dermatologist."

The general discussion was led by Dr. Francis Carter Wood,

Dr. Stanley Brady has been elected to the position of Regent of the State of New York, representing the First Judicial District of Metropolitan New York.

At the Columbia University alumni day lunchcon, held on February 12, Drs. Eugene H. Pool and Walter P. Anderston were recipients of the Alumni Federation's gold medals for conspicuous alumni service.

Dr. Anna Goldfeder was one of the investigatorto receive a grant in 1943 from the Ella Sachs Plotz Foundation for the Advancement of Scientific Investigation to study the relationship between radiation effects and cell viability as indicated by induced resistance to transplanted tumors.

The establishment of a department of tropical medicine at Columbia-Presbyterian Medical Center has been announced. Dr. Harold W. Brown has resigned as dean of the School of Public Health of the University of North Carolina, Chapel Hill, to become the professor of parasitology under the new setup. He is also the first member of the faculty for training and research in tropical discases, which will function under the immediate direction of the DeLamar Institute of Public Health, a division of the medical school. The project was made possible by a grant of \$150,000 from the Josiah Macy, Jr., Foundation, which will also defray the expenses of a concentrated five-year program of research and teaching at the Medical Center.

Dr. Otto Loewi, research professor of pharmacology, New York University College of Medicine, will present the Rothschild Lecture at Beth Israel

#### The Chemical Transmission

#### Niagara County

At a joint dinner meeting of the Lockport Chamber of Commerce and the Lockport Council of Community Agencies held on February 11 Dr. R. H. Sherwood, of Niagara Falls, former president of the Niagara County Medical Society, was one of the speakers who discussed the Wagner-Murray-Dingell bill.\*

#### Ontario County

The Canandaigua Medical Society heard a paper by Dr. J. Wendell Howard, of East Bloomfield, on "Arthritis" at the monthly dinner meeting with Dr. C. Harvey Jewett on February 10.

Dr. James F. Maltman was host on March 9, when Dr. D. A. Eiseline was the reader.\*

#### Queens County

At the stated meeting of the county society held on February 29 Dr. Thomas A. McGoldrick, President of the Medical Society of the State of New York, spoke on "More Laws for Medicine." Senator James Murray gave an address entitled "Medical Care for the American People Through Social Insurance." The discussion was opened by Dr. Louis H. Bayer, Speaker of the House of Delay. Dr. Louis H. Bauer, Speaker of the House of Delegates of the Medical Society of the State of New York. Preceding the meeting dinner was served at the Forest Hills Inn.

#### Rensselaer County

Dr. A. M. Chapnick, a lieutenant in the Army Medical Corps, has been retired to inactive status and has returned to practice medicine in Troy.\*

#### Schenectady County

Lt. Comdr. Francis F. Schwentker of the Navy Medical Corps spoke on "Pioneering in Medicine" at the monthly meeting of the Brotherhood of the First English Lutheran Church in Schenectady on February 7.\*

#### Schoharie County

Dr. Ward L. Oliver has received a commission as Surgeon in the U.S. Public Health Service (R) and has been assigned to act as Director of Health in District No. 3, West Virginia Department of Health.

#### Ulster County

Dr. John F. Larkin, of Kingston, has been named health officer of the city of Kingston.

Dr. Larkin replaces Dr. Lester E. Sanford.

who was the health officer for fifteen years.

A native of Kingston, Dr. Larkin is a graduate of old Ulster Academy and of Long Island Medical College. He interned at the Long Island Hospital and was connected for five years with the health department of the city of Yonkers. He then returned to Kingston to begin his private practice.

Dr. Larkin served for five years on the Board of Health under appointment of Mayor Eugene B. Carey, and was on the board at the time that the present Kingston city laboratory was built. He is also a member of the board of managers of the Ulster County Tuberculosis Hospital. For many years he has been attending surgeon at the Benedictine Hospital, and is also a member of the Kingston Hospital staff. He is a past-president of the Ulster

County Medical Society.

In the last war Dr. Larkin served as a medical officer. He now has two sons in the service, one in the Army and the other in the Navy.

A practicing physician for the past twenty-five years, Dr. Larkin will continue his private practice.\*

#### Warren County

Dr. Wilfred A. Rose, of Boston, has opened offices for the practice of medicine in Glens Falls.\*

#### Westchester County

Dr. Benjamin F. Ritchey has been appointed a part-time medical examiner in the public schools of Yonkers, during the leave of absence of Dr. Francis J. McMahon, now a captain in the U.S. Army.\*

#### Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Ira E. Booth	80	N.Y. Univ.	February 5	Buffalo .
Edgar G. Cuddeback	61	Cornell	February 10	Port Jervis
John A. Cutter	80	Albany	February 13	Manhattan
W. Whitehead Gilfillan	75	P. & S., N.Y.	February 10	Manhattan
Herbert F. Gillette	87	Buffalo	December 21	Port Washington
Charles L. Glaessner	68	Prague	February 26	Manhattan
George B. Grady	73	Albany	February 15	Watervliet
Charles Graef	71	Toronto	February 27	Bronx
James T. Gwathmey	80	Vanderbilt <sub></sub>	February 11	Manhattan
Raymond W. Holt	49	Buffalo	February 4	Niagara Falls
Edward Kellner	69	Vienna	August	Manhattan
Carl D. Meacham	57	Syracuse	February 16	Greene
Wolsey B. Potter James I. Russell	68	Medico-Chirurg., Phila.	December 15	Olean
Bernard Sachs	68	P. & S., N.Y.	February 14	Manhattan
Walter V G.	86	Strassburg	February 8	Manhattan
Walter N. Sedgwick R. Garfield Snyder	72	Jefferson	February 24	Manhattan
James Stotter	63	Toronto	February 25	Manhattan
Adolph Weizenhoffer	78	Vienna	December 29	Manhattan
Theodore C. Wiggins	65	P. & S., N.Y.	December 11	Flu-hing
work O. Wiggins	92	N.Y. Hom.	January 26	Manhasset

### Hospital News.

#### Parran Asks 65,000 to Join Cadet Nurse Corps

A CALL for 65,000 student nurses in 1944 was sent on February 24 by Dr. Thomas Parran, Surgeon General of the United States Public Health Service, to a meeting of the Committee on the Re-cruitment of Nurses of the National Nursing Council for War Service, held at the Council's headquarters

in New York City.

At the same time the annual meeting of the New York City Nursing Council for War Service, Inc., heard from Dr. Claude W. Munger, member of the procurement and assignment committee of the War Manpower Commission and director of St. Luke's Hospital, that plans were under way in Washington to increase the \$30 salary of members of the United States Cadet Nurse Corps to \$60 a month, plus maintenance, for the last six months of their

three-year training period.
Dr. Munger said that an amendment to the Bolton Act, establishing the Cadet Nurse Corps, was before Congress, which would give the President power to establish salaries above the \$30 minimum. ernment officials felt, said Dr. Munger, that \$30 was not sufficient for nurses in their final six months of training, when they would be sent to work in military hospitals alongside fully trained nurses.

Dr. Munger reported also that plans for a nationwide registration of nurses had been abandoned,

temporarily at least, because the Army had reduced its estimated requirements from 27,000 trained nurses to 10,000 for the current year. The Navy, however, he added, was still expanding and had not

reduced its requirements.

Mrs. Langdon P. Marvin, chairman of the Council, reported that 2,000 were admitted to the Cadet Nurse Corps from the New York area in 1943, which was an increase of 40 per cent over the number for the previous year. Two hundred

have been recruited in 1944, she added.

At the meeting of the national committee twentyfive persons were present, including heads of civilian groups cooperating in the campaign to enroll 65,000 student nurses. Miss Edith H. Smith, dean of the School of Nursing, Syracuse University, chairman, reported that 41,270 had been recruited during the last summer and fall, and that the spring enroll-

ment was encouraging.

The United States Cadet Nurse Corps, she said, now numbers 92,000 in all classes, including the 41,270 recruits. A special recruitment officer will be appointed for each state. In New York the officer will be Miss Agnes Gelinas, head of the School of Nursing at Skidmore College, Saragota Springs, affiliated with the Post-Graduate Hospital of New

#### Venereal Disease Clinic to Open at Bellevue

York City.

A FEDERAL Works Agency check for \$110,692.-46 turned over to Mayor F. H. LaGuardia on February 12 assured the opening on March 16 of a 200-bed center at Bellevue Hospital in New York City, where persons suffering from venereal disease will receive the most advanced treatments free.

Started more than a year ago, the center was constructed with \$290,000 in F.W.A. Funds appropriated under the Lanham Act, according to Dr. Edward M. Bernecker, Commissioner of Hospitals,

who will direct operation of the center.

The check is the first installment of a \$285,000 grant for maintenance of the center, which will be sponsored entirely by the federal government for the duration of the war. It is one of a number of such federally financed centers started throughout the country to prevent lessening of the nation's working and fighting capacity by venereal disease. After the war the City Department of Hospitals will have the benefit of the facilities if it provides maintenance funds.

The project will be known as the Rapid Treatment Venereal Disease Center. Under the F.W.A. budget, the center will employ 150 persons, including nurses, dictitians, educational and recreational staff, and laboratory, hospital, clerical, and maintenance workers.

Treatment of patients will be in charge of Dr. Evan Thomas, staff syphilologist at Bellevue, and Dr. Alfred Cohn, head of the City Health Department gonococcus research section. Dr. William F. Jacobs, Bellevue's medical superintendent, will be aided in administration by a commissioned officer of the United States Public Health Service, whose name will be announced shortly.

Correlated with the center, which will provide both outpatient service and full hospitalization, will be a 100-bed rehabilitation center on Welfare Island, which will be complete about April 1. Its program is expected to stress vocational courses, such as typing, radio repairing, garment making, and shop

#### Medical Social Service Aides Graduate

AS A RESULT of a joint training project spon-sored by the North Atlantic District of the American Association of Medical Social Workers and the Medical Social Service Committee of the United Hospital Fund, of New York, thirty-one medical social service case aides have been graduated and assigned for voluntary work in hospitals and a second class is in training. This is the first centralized course, including theory and supervised field work, that has ever been given in the medical social service field in this country.

At the first graduating exercises, Roy E. Larsen, president of the United Hospital Fund, presented certificates. Mrs. Curry Watson, chairman of the Nuclical Social Services Committee of the Fund. Medical Social Service Committee of the Fund, presided. Speakers were Miss Hazel Halloran, chairman, Medical Social Workers Committee; Sister Loretto Bernard, superintendent of St. Vincent's Hospital, and Dr. Morris Hinenburg, executive director, Jewish Hospital, Brooklyn.

Miss. Hellogy.

Miss Halloran, representing the professional

[Continued on page 640]



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ullet A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat is removed and to which has been added lactose, olive oil, cocoanut oil, corn oil, and fish

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approximately 20 calories per fluid ounce.

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[Continued from page 638]

association, described the training course, which covers a period of thirteen weeks, during which twenty-six hours are devoted to theory and discussion and sixty-five hours to supervised field work in the medical social service departments of the following hospitals: Hospital for Joint Diseases, New York Hospital, St. Vincent's Hospital, of Manhattan, Brooklyn Jewish Hospital, and Long Island College Hospital. Each of these hospitals has one staff member who serves as training supervisor for the aides during their field work period. The "VCAs," as the case aides are called, always

work under the supervision of professional medical social workers. Their duties are assigned on the basis of their individual capacities and in relation to a list of services agreed upon by the professional committee. Each aide is pledged to serve a minimum of forty-eight days a year in the department

to which she is assigned.

In discussing the development of this project Mr. Larsen pointed out that through the partnership of lay and professional groups interested in this field, a new service was being launched to assist professional medical social workers in meeting the mounting problems in hospitals as we enter the hardest and toughest phase of the war.

Dr. Hinenburg discussed the benefits which the hospitals will obtain through the services of the VCA. In connection with this, he defined the professional purpose of medical social work, relating

it to the treatment of the social and economic factors affecting illness. He spoke of the need in hospitals for this specialized service, explaining that medical care, even when skillfully administered, cannot alone meet the needs of many of the hospital patients. He spoke particularly of the value of having another group of lay persons as informed observers of the need for individualized service in the hospitals in order to maintain the high standards of care which the sick require.

Sister Loretto Bernard spoke of the meaning of volunteer service to the individual, citing its value in personal satisfaction and growth in being able to provide service for those who are in need of as-

The committee responsible for this project includes, in addition to Mrs. Watson and Miss Halloran, Miss Theodate Soule, chairman of the North Atlantic District of the professional association; Miss Sadie Shapiro, director, social service department, Hospital for Joint Diseases; Miss Grace Cooke, director of social service, St. Luka's Hospital: Miss Charlotte Slutsky, director Luke's Hospital; Miss Charlotte Slutsky, director of social service, Brooklyn Jewish Hospital; Mrs. Margaret Fitzsimmons, director of social service, Long Island College Hospital; Miss Florence Cohen, educational director, Mt. Sinai Hospital; and Mrs Edith G. Seltzer, consultant on medical social service, United Hospital Fund. Mrs. Eleanor Bishop, associate consultant on medical social service at the Fund, is serving as instructor.

#### Improvements

The scope of the work of Sunny View Hospital in Schenectady, which since 1928 has been carried on for crippled children, especially for victims of infantile paralysis, has been enlarged to include "children afflicted with cardiac, diabetic, and asthmatic diseases and with difficult feeding problems," according to an announcement made by Dr. C. H. Wolcott, president of the institution.

at Plattsburg, after having been closed for a number of years, has been modernized and renovated for obstetric patients. The floor was originally designed as the obstet-

ric unit and has accommodations for twenty-five mothers and babies.\*

The entire sixth floor of the Physicians' Hospital

A\_new auxiliary fire alarm box has been installed in Pawling Sanitarium.\*

#### At the Helm

The X-Ray Department at New York Hospital announces the appointment, for the duration, of Dr. Harold L. Temple as acting radiologist. Dr. Temple will succeed Dr. John R. Carty, who has resigned because of ill health.

The appointment of Dr. Edwin J. Grace as clinical director of the Huntington Hospital has been announced by Harold A. Nehrbas, president of the hospital association.

Dr. Grace is head of the Grace Clinic and a member of the surgical staff of Kings County Hospital in Brooklyn. He is a graduate of Fordham College Medical School and before entering private practice served an internship at the Mayo Brothers'

Clinic in Rochester, Minnesota.

Three specialists from the hospital's consulting staff have been appointed as advisers in the principal divisions. Dr. Edward D. Truesdell will serve as surgical adviser, Dr. Adolph Anderson as adviser in medicine, and Dr. Richard N. Pierson as adviser in obstetrics.

\* Asterisk indicates that item is from a local newspaper.

Dr. Morris R. Keen will serve as president of the medical staff, Dr. Wilbur C. Travis as chief of the division of surgery, Dr. Neil N. Falkenburg as chief of the division of medicine, and Dr. Louis P. G. Couley, as active shift of obstatuies while Dr. Gouley as acting chief of obstetrics while Dr. Samuel Teich is in the Army.\*

Dr. John S. Hickman was elected president of the Chautauqua Region Hospital Service Corporation at the annual meeting of the Corporation held on February 8. Dr. Hickman succeeds Dr. Alfred E. Randell, who has moved to New York City.

A resolution was passed at the meeting expressing appreciation to Dr. Randell for his services as president of the corporation for the last four years. Other officers elected were: vice-president, J. Gustaf Sundin; secretary, Mrs. E. Snell Hall; treasurer, Harold C. White.\*

Dr. Carlos E. Fallon has been elected chief of staff of St. Luke's Hospital in Newburgh, to succeed Dr. John W. McKeever.

[Continued on page 642]

⋆.



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[Continued from page 640]

Dr. Fallon, who will serve a three-year term, will be assisted by Dr. Frederick R. Small, who was named assistant chief of staff, and by Dr. Ruth Crabtree, who was re-elected sccretary. Drs. E. C. Waterbury and C. W. Layne were named as the executive committee.

Dr. Fallon has practiced in Newburgh for six-

teen vears.\*

Miss Margaret McVeigh is the new welfare director of medical social service at Staten Island Hospital,

Tompkinsville.

Miss McVeigh was recently with the North Atlantic Area Office of the American Red Cross. She was engaged in administrative work, directing home service activities of the Red Cross chapters in New Jersey and Delaware. She was concerned with caring for the needs of servicemen and exservicemen and their families.\*

Dr. Fred G. Jones has been elected president of the staff of St. Luke's Hospital, in Utica. He succeeds Dr. James W. Byrne.

Other officers elected were: vice-president, Dr. A. T. Goldstein; secretary-treasurer, Dr. A. Vernon Johnston; and executive committee, Dr. William H. Williams, Dr. Herbert W. Thomssen, and Dr. John W. Gromann.

Drs. Harry Davis and W. W. Wright were elected to the staff.\*

Francis L. Durk has been elected president of

the Brooklyn Eye and Ear Hospital.
Other officers are Louis S. Tiemann, vice-president; H. P. Schoenberner, treasurer; Dr. John H. Ohley, secretary; and Elliott M. Eldredge, s member of the board of directors.\*

Dr. Arthur M. Stokes, assisting superintendent at Homer Folks Tuberculosis Hospital, has been appointed superintendent at Mt. Morris Tuberculosis Hospital.

Dr. Stokes replaces Dr. N. S. Lincoln, Mt. Morris superintendent who has been appointed superintendent at Hermann Biggs Memorial hospital at Ithaca, to replace Dr. John K. Weegan, who has resigned to enter military service.

Dr. E. L. Leech, formerly assistant superintendent at Homer Folks Hospital, who is now at Hermann Biggs Hospital, will return to Oneonta

to replace Dr. Stokes.\*

#### **Newsy Notes**

Responding to an invitation from Arthur L. Zerbey, president of the board of managers of Mount Vernon Hospital, twenty-one representatives of eleven Westchester County hospitals, representing a capacity of approximately 1,800 beds, met at the Roger Smith Hotel, White Plains, on February 2 to inaugurate what is described as being one of the most important, helpful, and influential hospital lay-men's groups, from the business, operating, and economic standpoints, that has ever been organized in hospitals of this county

The idea originated with Mr. Zerbey and Vernon F. McClellan, treasurer of the Mount Vernon Hospital, in the interest of getting better acquainted, and of comparing hospital rates, operating costs, and methods. The group will consist of all hospital personnel, exclusive of professional employees, and will include members of the boards of directors of

all the cooperating hospitals.

Stressing the fact that doctors of the medical professions have their groups and hospital superintendents their associations, Mr. Zerbey said that the importance of hospital laymen's knowing each other better and exchanging ideas, plans, and suggestions would prove invaluable, and pleaded for "realization of the importance of our united position and its attendant responsibility."\*

address system will reach every room and every building of the hospital. More than \$2,600 already has been donated from various sources for its purchase, Mr. Douglas announced.\*

The Hospitals Division of the War Finance Committee for New York reported that up to February 17 a total of \$2,637,814 in war bonds had been sold by the division during the Fourth War Loan cam-The report was made by John McCormack, superintendent of Presbyterian Hospital, and Mrs. Donald B. Woodward, cochairmen of the Hospitals Division.

The total represents purchases by hospital personnel, board members, and a few patients, and also some institutional purchases. The hospitals continued their campaign during the rest of the

month.

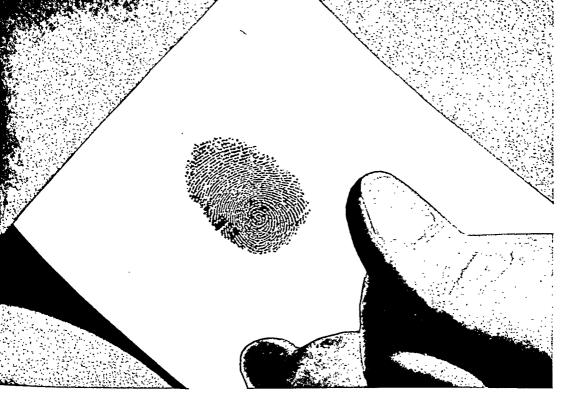
Beekman Hospital headed the list, with a total of \$601,014. Other leaders, in order of total sales to February 17, follow: Presbyterian Hospital, \$470,800; Mt. Sinai Hospital, \$229,425; New York Orthopaedic Dispensary and Hospital, \$178,600; Jewish Memorial Hospital, \$165,954; New York Polyclinic, \$148,997; New York Infirmary for Women and Children, \$129,925, and New York Hospital, \$115,035.

A check for more than \$100, proceeds from a recent scrap paper drive in Sector 8 of Utica, was presented to Col. A. J. Canning, commander of Rhoads General Hospital, by John Douglas, Sector 8 warden, on February 10.

The check will go into the Rhoads General Hospital civilian donation fund, to be used for the purchase of a public address system. The public

An interesting bit of news has just been received by the Journal from Headquarters of the European Theater of Operations of the U.S. Army. When Maj. William J. Hochbaum, of New York City, a medical officer of a United States evacuation hospitalist of the Company of the pital in England, entered a United States station hospital in the vicinity of his unit, he found in charge

[Continued on page 644]



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[Continued from page 642]

an old friend and former teacher, Col. Joseph Haas,

of Brooklyn.

Major Hochbaum served his internship at Mt. Sinai Hospital in New York fifteen years ago. Colonel Haas was on that hospital staff then and he is still a member.

The Army evacuation hospital arrived not long ago at its present location and the major, bothered with a respiratory infection, entered the nearby station hospital. Treated for his ailment and ready to return to duty, he was surprised to find that the commanding officer of the big Army medical installation was the same man he knew long ago.

Duties of Major Hochbaum in the evacuation hospital include maxillofacial surgery and surgery of the eye, ear, nose, and throat. He was chief of service at the Riverside Hospital and associate in otolaryngology at the New York Post-Graduate Hospital and the Hospital for Joint Diseases.

Major Hochbaum entered service in August, 1942. Originally attached to an Air Corps unit, he has been on the staff of the evacuation hospital for most of his tour of military service, participating in the unit organization and training in Massachusetts and Virginia.

He took an intensive course in field medical serv-

ice at Carlisle Barracks, Pennsylvania.

The major graduated from Columbia University College of Physicians and Surgeons in 1927. He taught physiology at the college for one year and interned at Mt. Sinai for two and one-half years, following this with a residency in otolaryngology at Mt. Sinai for another two years. It was during this period that he became acquainted with Colonel Haas, a member of the board and a member of the staff of Mt. Sinai for eighteen years.

Nurses' aides who catch early morning ferries to Halloran Hospital on Staten Island in the future will have six emergency beds to permit them, when possible, to spend the night at the Hospital when

they have two consecutive days of active service.
The plan was announced by Mrs. Frederic de Rham, chairman of the Halloran Hospital aides' unit. Few of the thirty-five volunteers live on Staten Island.\*

Volunteer members of the staff of St. Luke's Hospital in New York City have contributed a total of 38,000 hours of service during the past year. Originally limited to women only, this service now enlists men, who work as orderlies and elevator operators, while Boy Scouts serve as messengers and cafeteria aids.

The affiliation of Yonkers General Hospital with the Wagner College Central School of Nursing, Staten Island, has been announced by Dr. Clarence

C. Stoughton, president of the college. Yonkers General is the fourth hospital to join with Wagner College in the Central School of Nursing program. The other hospitals are Richmond Memorial Hospital, Staten Island Hospital, and Sea View Hospital, all on Staten Island.

Details of the participation are being worked out by Charles E. Crost, superintendent, and Miss Florence Nickok, director of nursing, of the Yonkers, Hospital, with Miss Mary D. Burr, director of nursing at Wagner College.

The new central nursing school, the first of its kind in New York City, was opened last September with an enrollment of 55 students. The second class, in which 40 were admitted, began in Febru-

All of the young women in the nursing school are members of the U.S. Cadet Nurse Corps. They receive nine months of theoretic training in the sciences and nursing arts at the college, following which they will be sent to any one of the four affiliated hospitals for two years of practical work. They will then be eligible to take the state examination for certificates as registered nurses.

At the termination of the war emergency period the registered nurses will be allowed to return to Wagner College for a fourth year of study as candidates for

bachelor of science degrees.

The school has the approval of the State Department of Nursing and the New York State Nursing Council for War Service.\*

The Army Medical School at Walter Reed General Hospital marked its fiftieth anniversary December 19 with the graduation of the class in military and tropical medicine, the sixteenth since August, 1941.

Col. Richard P. Strong, director of tropical disease at the school, bestowed certificates on 124 graduates who included officers of the armies of the United States, Canada, and Peru. The graduation address was given by Maj. Gen. Norman Kirk.—Modern Hospital

The Schenectady Gazette of January 10 carried the following editorial entitled "A Community Institution":

The report that Glenridge Sanatorium, the Schenectady county tuberculosis hospital, has been recommended as a model of a good medium-sized sanatorium to a congress of representatives of five Latin American nations should be a source of pride to all residents of the county who contribute to the support of the local institution through annual taxes. It is also a tribute to Dr. James M. Blake, administrator; Dr. Walter Lawrence, and Dr. Victor Montoya, assistant physiciana, and the whole staff of the sanatorium.

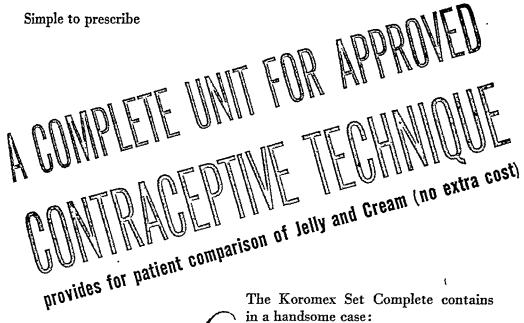
The fact that the medical director of Bolivar Hospital in Caracas, Venezuela, Dr. R. Soules Baldo, selected Glenridge as a model after a seven month tour of the United States, during which time he visited several other institutions, adds during which time he visited several other institutions, adds further the summer of the countries through such ties between the scientific men of the countries of the western hemisphere that the "good neighbor" policy of the western hemisphere that the "good neighbor" policy of the western kemisphere that the "good neighbor" policy of the seasone just as important as the legal and economic ties which are stressed so much today.

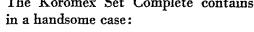
Further strengthening these ties was the adoption of the National Tuberculosis Association's system of classification for the disease. Dr. Montoya offered a resolution urging the for the disease. Dr. Montoya offered a resolution urging the proved for official use in Venezuela. The system is used proved for official use in Venezuela. The system is used proved for official use in Venezuela. The system is used proved for official use in twentern hemisphere.

Aside from the honor of having Schenectady's tuberculosis Asio from the honor of having Schenectady's tuberculosis tis a source of the source of th

treatment and who may fall

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- H-R Diaphragm with special pouch
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# Holland-Rantos

#### [Continued from page 644]

Five Nassau hospitals recently received checks for \$2,513.18 each, the gift of New York racing and representing part of the profits from the nine-day Victory meeting at Jamaica race track, November 4-13.

The hospitals receiving the gifts were Nassau, North Country Community, South Nassau Communities, Long Beach, and Mercy. A total of \$628,294.57 was distributed to charitable agencies by the committee in charge.

Representatives of the various hospitals attended the presentation ceremonies at the River Club,

New York City.\*

An Eric County Division of the Practical Nurses of New York, Inc., was organized in December.

The Erie group is the eighth active division of the State Association operating in New York. Other divisions cover Greater New York, Westchester, Dutchess County, Albany, Broome County, Rochester, Schenectady, and Rensselaer.\*

The Benedictine Hospital, Kingston, is the chief beneficiary of the estate left by the late Mrs. Katherine R. Elting, of Kingston. It is estimated that the institution will receive about \$125,000 under Mrs. Elting's will.\*

#### LEAD POISONING AND BENJAMIN FRANKLIN

In December, a report of the Committee on Lead Poisoning of the Industrial Hygiene Section was published. "Occupational Lead Exposure and Lead Poisoning," it is titled, and, according to the Lead Industries Association and other reviewers, "thoroughly summarizes present-day knowledge" in regard to the recognition, control, diagnosis, and treatment of industrial lead poisoning. Present-day knowledge adds up to quite a lot, even to the conclusion that "recovery from lead poisoning is usually complete, leaving no partial or complete disability," and reminds us that this generation again is the beneficiary of centuries of patient observation, deduction, and reasoning fused into another weapon for our use in preventing and alleviating human misery.

Benjamin Franklin was a pioneer in the diagnosis of lead poisoning. In 1768, he wrote to Cadwallader Evans that he had long believed the disease to be due "to a metallic cause only; observing that it af-

fects, among tradesmen, those that use lead, however different their trades; as glaziers, letter founders, plumbers, potters, white-lead makers, and painters." Drawing on his own background as a printer, Franklin expressed in another letter the belief that lead poisoning among typesetters was due to the particles of metal swallowed with their food by slovenly workers who ate their meals without washing their hands. "The presence of vapors, or fumes, or fine dust of lead compounds in the air breathed by workmen is the most important factor in occupational lead, exposure" says the new report, "however, lead compounds which contaminate the hands, food, tobacco, or other objects taken into the mouth, may not be ignored as means of exposure, even though the conditions be such that these compounds are not disseminated into the air breathed by men."—From "Credit Lines" in Am. J. Pub. Health



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FERRIN, for OVOFERRIN is colloidal iron. It is not in ionic form. It is little affected by the gastric juice. It remains stable and cannot irritate. It cannot constipate for it reaches the intestine as a fully hydrated colloid—a form in which nutriment is readily absorbed. For these reasons physicians have come to regard OVOFERRIN as the ideal hematinic in pregnancy. For these reasons also, OVOFERRIN has achieved a reputation as "The Rapid Blood Builder" in secondary anemia, convalescence, anemia of children, and rundown states. Its palatability and high assimilability assure patient co-operation and better results.



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#### Health News

#### Crabtree Appointed Acting Chief of Health Division of UNRRA

Herbert H. Lehman, Director General of the United Nations Relief and Rehabilitation Administration, recently announced the appointment of Dr. James A. Crabtree as acting chief of the Health

Division of UNRRA.

Dr. Crabtree graduated from the University of Tennessee School of Medicine, Memphis, in 1925 and took postgraduate work in public health at Johns Hopkins University School of Hygiene and Public Health, Baltimore. He was associated with the Tennessee Department of Public Health until 1934, when he became assistant director of health and safety for the Tennessee Valley Authority. Since 1938, Dr. Crabtree has been in the Com-missioned Corps of the U.S. Public Health Service. In June, 1940, he became executive assistant to the Surgeon General, U.S. Public Health Service, and from March, 1941, to April, 1943, was assigned to the Office of Defense Health and Welfare Services as executive secretary of the Health and Medical Committee, serving also from July, 1942, to April, 1943, as medical consultant to the Office of Lend-Lease Administration. He has served as chief medical officer of the Office of Foreign Relief and Rehabilitation Operations since April 1, 1943.-J.A.M.A.

#### Cannon Appointed to Committee on Maternal and Child Health Services

Dr. George D. Cannon has been appointed to the Children's Bureau Advisory Committee on Maternal and Child Health Services. The following New York City members of the Bureau's Commission on Children in Wartime have also been appointed to the Advisory Committee, ex offico: Drs. Leona Baumgartner and Reginald M. Atwater.

#### Good Neighbor Policy in Medical Training

Under an agreement with the Coordinator of Under an agreement with the Coordinator of Inter-American Affairs providing training facilities for medical Fellows from Latin America, Dr. Augusto Carlos Mallorquin of Paraquay, Dr. José Francisco Valiente, of El Salvador, central America, have been assigned to the Division of Tuberculosis of the New York State Department of Health for a period of approximately six months to study tuberculosis control. Both Dr. Mallorquin and Dr. Valiente began their training the latter part of October, the former at the Homer latter part of October, the former at the Homer Folks Tuberculosis Hospital in Oneonta and the latter at the Mount Morris Tuberculosis Hospital in Mount Morris.

Dr. Mallorquin is director of the Tuberculosis Dispensary in Asunción and, on completion of his studies in the United States, will be associated with the new tuberculosis sanatorium which is being constructed under the field program of the Health and Sanitation Division of the Institute of Inter-Ameri-

Dr. Valiente has been specializing in tuberculosis can Affairs.

work in Rosales Hospital and the National Sana-torium at Los Planes. He is assistant superintendent at the latter institution.

It is the intention of the Coordinator of Inter-American Affairs to refer additional physicians from Central and South American countries to the Division of Tuberculosis for training,—Health News

#### Bristol is Chairman of Health Advisory Council

Eric A. Johnston, president of the Chamber of Commerce of the United States, has announced the appointments of Dr. Leverett D. Bristol, executive director of the Hospital Council of Greater New York, as chairman of the Chamber's Health Advisory Council, and of Dr. Anthony J. Lanza, chief of the Occupational Hygiene Section of the Office of the Surgeon General, A.U.S., as chairman of the Council's Committee on Industrial Health. Dr. Bristol succeeds Dr. James S. McLester, of Birmingham, Alabama.

In discussing the work of the Advisory Council, which operates with the Chamber's Insurance Department in advising business organizations throughout the country on industrial, individual, and community health. and community health programs and in cooperating with national, state, and local health agencies, Dr.

Bristol said:

"The health of the nation's sixty million wage earners and war workers of every kind and type is vitally important to the war effort. In the last quarter of a century the hygiene of American industry has made notable progress, commensurate perhaps with that made by production itself. Many American industries have attained an undivisions surpassed standard of healthful working conditions and of industrial health service. This achievement, however, carries with it the tendency to overlook the fact that the great majority of American wage earners are employed in small establishments-those employing 500 or less. The rank and file of such industries are still a long way from providing for all the health service that has come to be regarded as normal and proper where a number of wage

earners are assembled under one management.

"I believe that the National Chamber's Health Advisory Council . . . should place special emphasis on the health of workers in industry, particularly in the smaller plants, few of which, at present, make adequate provision for the medical supervision and care which is so essential to mainsupervision and care which is so essential to maintaining full productive capacity."

Dr. Bristol is a graduate in medicine of Johns Hopkins University and holds a degree in public health from Harvard. He was one of the pioneers in the field of industrial health and is a recognized authority in this field.

Dr. McLester, chairman of the Council from its authority in this field inception, has found it necessary to resign the general chairmanship because of additional responsibilities placed on him by the Federal Government in connection with its war nutrition program and by Governor Sparks of Alabama in connection with the development of a four-year medical school for that state.

[Continued on page 650]



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#### [Continued from page 648]

The basic objective of the Health Council is to enhance the nation's human resources-and hence its productive efficiency—through prevention and reduction of illness and accidents and by increasing the physical fitness and well-being of its citizens. The Council seeks to distribute and make effective in all groups at the community level the health knowledge which is already available, and to stimulate and secure the support of business men and laymen for national, state, and community health programs. The work of the Chamber in cooperation with the American Public Health Association for the last fifteen years, in evaluating local health activities and needs through the National Health Honor Roll, is thus expanded and broadened in scope.

Dr. Anthony Lanza, chief of the Occupational Hygiene Section of the Office of the Surgeon General, U.S. Army, succeeds Dr. Bristol as chairman of the Chamber's Committee on Industrial Health. He has been active in the field of industrial hygiene

for the last twenty-five years.

#### Malaria, Typhus, and Yellow Fever Not Postwar Problems, Says Admiral Stephenson

Malaria, typhus, and yellow fever will not become public health problems in the United States, in the opinion of Rear Admiral Charles S. Stephenson, M.C., U.S.N., who described his experience as organizer of the United States of America Typhus Commission at the New York Tuberculosis and Health Association's Annual Conference on Feb-

Sir Gerald Campbell, G.C.M.G., special assistant to the British Ambassador to the United States, who shared the program with Admiral Stephenson, spoke on "The Health of a Once-Beleaguered Na-In his talk he described the mental and physical welfare of the citizens of England under the stress of war and the tuberculosis prevention

program of the Health Services of Great Britain.

Admiral Stephenson declared: "There is no likelihood that typhus fever will be introduced in the United States, as delousing will be effective with the military population before they leave the areas where they may encounter typhus fever, and all troops will be vaccinated before going into areas

where typhus fever is known to exist."

Regarding malaria, Admiral Stephenson said that it is "perfectly obvious that people who have malaria will return to the United States and it is fair to state that small local outbreaks may occur, but they should be easily brought under control."

Spraying of aircraft flying between the United States and the various areas where yellow fever exists, by government regulation, and the vaccination against yellow fever by travelers all over the world largely reduce any possibility of bringing into this country a person suffering from yellow fever, according to Admiral Stephenson.

"The historical beginning of yellow fever in the United States has been disastrous, and it has been seen as far north as New York City," Admiral Stephenson said. "Nevertheless, in the event of its introduction into this country there is ample vaccine available."

Sessions on tuberculosis were held all day, with the Tuberculosis Sanatorium Conference of Met-ropolitan New York sponsoring the afternoon session. "Tuberculosis on the Home Front,"

"Hospitalization of the Tuberculous," and "Employing the Tuberculous During Wartime" were

topics discussed at the morning conference.

The Social Hygiene Division of the Association rine Social Tygene Division of the Association held six sessions during the day, at which were discussed, among other subjects, "The Effect of Venereal Diseases on Fertility," "How Venereal Disease Affects Family Life," "Scientific Advances in Venereal Disease Treatment," and "Health Education in Relation to Disease Prevention."

"Physical Legislation of Physical Health Psychology"

"Rheumatic Fever as a Public Health Problem" and "The Rheumatic Fever Program of the Children's Bureau" were discussed at the session arranged by the New York Heart Association, a division of the New York Tuberculosis and Health Association.

#### Consultant Service for Nurses in Industry

The Division of Industrial Hygiene, New York State Department of Labor, has established a branch office in Syracuse. Arrangements were made with the Medical College of Syracuse University for office and laboratory space, and the United States Public Health Service has assigned an industrial physician, an engineer, a chemist, and a nurse to work in plants in the upstate area.

With the opening of this office, the services of an industrial nursing consultant were made available to nurses in industry. The purposes of the service are to assist industrial nurses in formulating programs of work, to establish record systems or revise existing ones, and to act as a medium for the exchange of industrial nursing experiences, health education material, and information regarding university courses.

Folders are maintained on industrial records, health pamphlets, and health posters. These are lent on request for a period of one week. Any industrial nurse who wishes to borrow this material should communicate with Miss Margaret J. Nichols, Industrial Nursing Consultant, New York State Department of Labor, 766 Irving Avenue, Syracuse 10, New York.—Health News

#### Talc Mining Presents Industrial Health Problem

The New York State Department of Labor has found that the mining and milling of tremolite talc in New York State presents a definite workers' health problem, Industrial Commissioner Edward Corsi has announced. Industrial hygiene experts of the Department reported to the Commissioner that "exposure to tremolite tale dust must be considered to constitute a definite industrial hazard requiring control of dust by suitable engineering methods."

New York is the leading tale producing state of the nation, Commissioner Corsi pointed out. It is noted for its fibrous tale, known as asbestine. With the fibrous tale is found tremolite, a similarappearing mineral occurring in a fibrous or asbestiform state, which in the course of time changes to

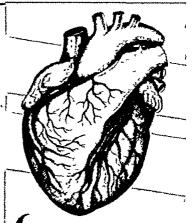
In the New York State tale mining and milling talc. establishments alone there are less than 500 workers, but there are thousands of workers in industries where talc is used as an ingredient of manufactured products who may be exposed to high concentrations of tremolite tale dust. For this reason the State Labor Department's study has wide applica-

[Continued on page 652]

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Worcester Massachusetts [Continued from page 650]

tion, Commissioner Corsi said. Recently the high dust concentrations and other hazards to the health and safety of both miners and millers have be-come a subject of grave concern to their labor unions

In the Labor Department's study, operations and dust concentrations in three tremolite talc mines and five mills located in St. Lawrence County were observed and analyzed by engineers of the Division of Industrial Hygiene. Department physicians gave initial x-ray examinations to 221 men from seven plants. In the case of 28 of these men who showed positive lung findings, a follow-up examination, which included a second x-ray, physical examination of the chest, medical history, and detailed occupational history was made at the end of 10 months.

Eighteen of the men showing marked fibrosis were found not to have been engaged in any other dusty industry. Of these, 15 worked in talc mills, three in the mines. Other phases of the study also showed that fibrosis was relatively more prevalent among millers than among miners. With one exception, the men with fibrosis were all 40 years of

age or older and had been exposed to tale dust for at least ten years. Thirteen of the 18 had one or more symptoms referrable to the lungs. The group showing fibrosis presented an undernourished and drawn appearance.

In the total group of 221 talc workers, 29 showed primary healed tuberculosis, six, healed reinfection type tuberculosis, and five, clinically significant tuberculosis. The incidence of clinically significant tuberculosis (2.2 per cent) was slightly higher than the average (about 1.2 per cent) found in most industrial groups. Among the 18 cases of fibrosis in those exposed only to talc dust, however, clinically significant tuberculosis appeared to be a

complicating feature in three cases—16.6 per cent. Remedial procedure in the control of tremolite talc dust has been taken under existing industrial code rules, Commissioner Corsi said, and the study of tale hazards has been extended to those industries where tale is used as an ingredient in the products manufactured. If existing code rules are found inadequate to complete control of the hazard, Commissioner Corsi added, they will be revised or new rules recommended which will meet the

requirements.

#### DOCTOR AND PATIENT

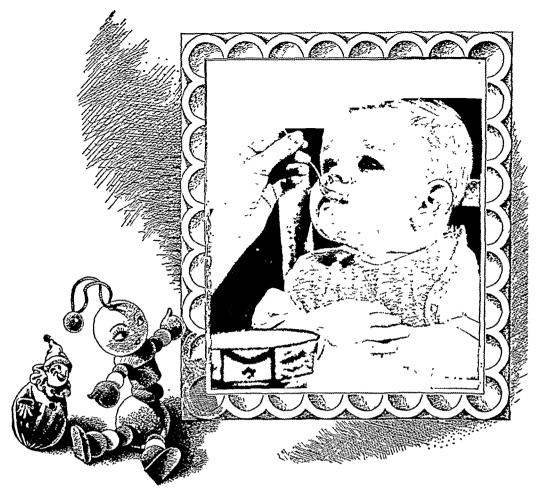
It is a common complaint against the hospitals that patients are not told enough about their illnesses and that there is almost a conspiracy on the part of doctors and hospital authorities. What the psychologist solls (the psychologist solls) (the p gist calls "channels of communication" become increasingly important and at the same time harder to keep open as an organization grows in size and complexity. In fact, communications can be maintained only by persistent and conscious endeavour. A patient attends a hospital for treatment of an inguinal hernia and is found, to his misfortune to have some lesion of which he was wholly unaware, such as coarctation of the aorta or an early Paget's dis-

Before he knows where he is, he is an inmate of a medical ward and is submitted to investigations that have no obvious relevance to his complaint. Finally he is discharged, still with his hernia and naturally disgruntled. Students and housemen need a frequent reminder that they should on no account let a patient out of a hospital without making sure that they know what he actually came in for and whether he is satisfied. They should also realize that—with the growth of contributory schemes and payments for services rendered on the one hand, and, on the other, the subvention of medical education by Government grants, research funds, and hospital facilities-it is more appropriate to look upon the medical student as the recipient of charity than the patient. Most consultants would confess that they learn more from their private patients than from their hospital patients. This is often put down to the superior intelligence of the former. Nevertheless, other factors such as expenditure of time and psychological attitude are different, and the student should be taught that the nearer he can get to the private patient relationship in studying his hospital patients the more he will learn about his art. It is unfortunate that so many medical students have to be trained in large cities such as London, where teaching hospitals have less local responsibility than in smaller cities and where the spirit of an old-established charity still haunts the wards. a better discipline in the relationship of hospital,

doctor, and patient if they work in a small provincial centre-particularly if they regard the local weekly paper as one of their most important texts. What happens in the hospital is not merely news: it is a major interest of the community. In such a centre the student will learn most rapidly the unwisdom of operating on advanced malignant disease or of carrying out risky diagnostic procedures unless he has made certain that the patient and the relatives fully realize and accept the position. It is easy to be thoughtless of the individual when medicine is organized on the lines of quantity production, as it is in large hospitals and in industrial establishments. And care must be taken that no bafflement or disillusion of the individual taints the health centres and unit hospitals which make such a brave

showing in pictures of the future.

The industrial medical officer obviously runs the risk of working across the grain rather than with it in his dealings with the worker. He is peculiarly liable to be affiliated with "they" and "them," those paranoid fantasies on which we all vent our spleen-and will continue to do so whatever "ism" we live under. Just as the primary interest of the hospital doctor is diagnosis, so the primary interest of the factory doctor is maintenance of a low sickness rate. In the one case patients tend to become "clinical material," in the other they become "labour, unless we are always mindful of our professional fail-Yet the industrial medical officer is often justified in his complaints against the private practitioner. One of the main purposes of doctors is to keep people at work, both for their patients' sake and for the sake of the country. It is very wrong, therefore, for a private practitioner to attribute banal symptoms to industrial processes of which he knows nothing, to give long holidays for trivial male addies or to dealers. adies, or to declare a worker unfit for a particular job on eleemosynary rather than scientific grounds. Medicine has a duty to both the individual and the community, and, whatever state of society we live under, we can never be absolved from the task of bringing harmony between them.—Brilish M. J., F.b. 5, 1944



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### Woman's Auxiliary

#### To the Medical Society of the State of New York

#### County News

Albany. Dr. Irwin A. Conroe, assistant State Commissioner of Education, addressed the auxiliary at the University Club. Dr. Conroe talked about the licensing of foreign physicians in New York State. Mrs. Marion Melanson Colfer was the pro-gram chairman for the event. Mrs. James S. Lyons, president, presided at the meeting. Dr. and Mrs. Conroe were entertained at dinner before the meeting

Columbia. The February meeting was held at the Red Cross headquarters at Hudson. meeting the members assisted with Red Cross work.

Herkimer. Mrs. Byron G. Shults, president, and Mrs. Harold Buckbee, State Historian, attended the State Executive Board meeting. Dr. Joseph Lawrence addressed the medical society. The meeting was held at the Mohawk Valley County Club. Dr. Lawrence criticized provisions of the Wagner-Murray-Dingell Bill. Dr. Lawrence stated that the bill should not be enacted. The meeting

Mrs. Frances Hoffman gave a report on the Wagner-Murray Bill at a meeting of the American

Legion Auxiliary.

On April 15, at the Mohawk Valley Country Club, the fourth anniversary of the auxiliary will be celebrated. Mrs. John Canfield was named chairman, to be assisted by Mrs. Albert L. Fagan, Mrs. Fred Sabin, Mrs. H. F. Morey, and Mrs. Harold F. Buckbee. Members of the medical society will be invited to this meeting. The auxiliary is helping Miss Mildred Kunes, local librarian, to furnish books and magazines for the Herkimer Memorial Hospital.

Niagara. A meeting was held at the Prospect House. Luncheon was served. Mrs. John Kinzly presided at the meeting, which followed the lunch-eon. Dr. Grant Guillemont and Dr. Richard Sherwood of Niagara Falls were the speakers of the afternoon, their subject being the Wagner-Murray-

Dingell Bill.

Rensselaer. Dr. Joseph Lawrence was the guest speaker at a membership tea and guest meeting. The meeting was held at the Hendrick Hudson. Mrs. John J. Noonan and Mrs. Augustus J. Hambrook presided at the tea table. Mrs. Warren St.

John was the chairman.

Saratoga. At a meeting of the auxiliary Dr. Helen Hosmer, assistant physician at the Homestead Sanatorium, told of her experiences with the Grenfell Mission. Sir Wilfred, a widely known sportsman, financed the project while in Labrador to enjoy sports, starting the mission by giving medical aid. He used his own boat, which he transformed into a hospital ship, to ply up and down the coast administering aid. The difficulty of operating in a country where there were no roads and travel was by boats and dog team, and many other inter-

esting features of the Mission were related by Dr. Hosmer. Mrs. James J. McNaughton reviewed legislative matters, asking all members to write to senators and congressmen.

The auxiliary members were guests of the county medical society, at the Gudion Putnam. Dr. Joseph S. Lawrence was the speaker. Dr. Lawrence's talk was on legislative aspects of medi-

Mrs. G. Frederick Goodfellow and Mrs. Malcolm J. Magovern were hostesses for the social hour.

Schenectady. Dr. Joseph S. Lawrence spoke at Old Chapel, Union College, under the auspices of the auxiliary. Mrs. Milton Gipstein was in charge of the meeting. Labor, civic, fraternal, and professional groups were invited to attend. A Christmas tea was held at the home of Mrs. Isaac Shapiro. Presiding at the tea table were Mrs. F. Leslie Sullivan, State President, Mrs. Herman Galster, Mrs. Albert Greene, and Mrs. William Mallia. A Christmas program was presented by James Smith, Sara Linn Blake, Sandra Smith, Rollin Galster, Ann Constance Penta, Gail Von Borstel, Eleanor Shapiro, Barry Gipstein, Roland Faulkner, Gerardus Jameson, Joseph Loffredo, Albert Loffredo, and Patty Duncan (these are the coming medical society and auxiliary members). Mrs. Albert Grussner invited members of the auxiliary to visit the Child Care Centers. Mrs. Milton Gipstein extended an invitation to the members to hear Miss Jane Evans of Cincinnati and New York, executive director of Temple Sisterhoods of the National Federation.

Mrs. W. Howard Pillsbury spoke to the auxiliary on the difficulties confronting every nation after the war. The problem of "Children in a World at War" was the main topic. Mrs. Pillsbury explained that bombings in themselves have not done so much damage to the future development of world citizens as the disrupting of homes. Parents and children have been torn apart, and the methods and customs of foster parents have estranged both children and parents. When these families are reunited, friction is bound to occur, she said. Hatred which is being instilled in everyone is necessary to win a war, but it cannot be shut off immediately following the peace. There is a delicate balance between duty to the war and building postwar citizens. Child Care Centers are valuable in this respect since they tend to direct the energies of respect, since they tend to direct the energies of children into constructive instead of destructive The movie which was shown at the meeting, "Children of Working Mothers," depicted this development, Mrs. Pillsbury stated.

The Annual Convention-May 8-11, at the Hotel Pennsylvania, New York City.

Aristotle, the ancient Greek philosopher, advised over 2,000 years ago the eating of liver to prevent night blindness.-Minnesota Medicine

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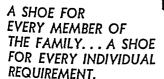
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#### Tuberculosis Abstracts

### The Family Doctor, the Patient, and the Job

The private physician who has guided his patient through recovery from pulmonary tuberculosis is now being asked frequently to advise concerning some job which that patient may attempt without too great hazard. In this general manpower shortage, the patient with inactive tuberculosis, whether from civilian life, from induction centers, or discharged from military services, can find employment readily in many localities, particularly if he has an established skill. Beside that economic need which makes many patients reluctant to continue treatment for the prescribed period, patients now are moved by the wish to become a part of the war effort and sometimes by high wages. Some employers who hire all comers are unlikely to establish any safeguards for handicapped workers.

One of the physician's paramount difficulties has been the item of sufficiently definite information about the job in question. Jobs are changing rapidly.' The exhausting task of a year ago has been reduced to machine-tending. Redesign, retooling, reorganization, rerouting, continue to make more specifications obsolete. Keeping up with such rapid and drastic change is impossible for any physician or lay worker without current sources of industrial information. Some physicians have sought to bridge this difficulty by such general terms as "light work," hoping thereby to protect the patient from excessive exertion, strain, and tension. Unfortunately, employers' requirements are definite. Employment placement interviewers must meet these definite requirements. A patient's ability to do "light work" is indefinite and unsaleable.

But there are now official and unofficial sources of information through which physician and patient may usually find definite indications concerning which job is free from undesirable hazards. The official services include the United States Employment Service, which has branch offices in most population centers, and the State Vocational Rehabilitation Services. The United States Employment Service has the most complete and currently accurate information on what jobs there are in each community and on what physical performance is required in each job. It has originated a "Physical Demands Form," which is being used experimentally to determine required physical activity and working conditions. This type of job analysis explores especially such items as continuous standing, sitting, lifting, stooping, etc. One purpose of this informa-tion is to check the specific requirements of the job against the specific limitations of the handicapped applicant.

Interested physicians may obtain copies of interim physical requirement forms from the National Tuberculosis Association. The larger offices of the U.S.E.S. also include executives or interviewers who have some experience in special placements and who are qualified to discuss the subject of suitable placement for recovered patients with their physicians. The U.S.E.S. has placed thousands of inactive tuberculous patients in hundreds of different jobs. The suitability of these placements has depended most of the time on the quality and quantity of medical information available.

When the recovered tuberculous patient has no marketable skill, or when his old job is contra-

indicated medically, application for training or retraining and placement should be made to the State Bureau of Vocational Rehabilitation. Financed by State appropriations and Federal matching funds, these Bureaus are empowered to impart specific vocational training and placement to handicapped adults in order to make them self-supporting.

The physician will find in Federal Form R-3a (revised), published by the Federal Vocational Rehabilitation Bureau and in the manual prepared for its interpretation (Misc. 2328) practical bases upon which rehabilitation agent and physician may cohere their services for the patient.\* The form and the manual are the result of many consultations between Federal rehabilitation personnel and members of the Council of the American Trudeau Society and other phthisiologists of long experience. Many state agents and supervisors have learned that, as the Federal manual points out, direct interview between physician and rehabilitation worker is the most satisfactory procedure for both.

A number of the state and local tuberculosis associations have included rehabilitation in their program objectives. Some have employed special personnel competent to assist the patient in finding his way to appropriate training or placement or both. Rehabilitation workers employed by voluntary agencies are well aware that the patients of private physicians may have as much need for their services as the sanatorium graduate. The physician may find it well worth while to inquire from the nearest tuberculosis association what it has to offer in the direction of rehabilitation.

Both official and voluntary resources have been stimulated and encouraged by changing attitudes within industry. Not manpower shortage alone, but a cumulation of satisfactory performance by former patients, has done much to improve this

situation.

The nation's leading personnel agency, the United States Civil Service Commission, has conducted surveys of jobs in several types of Federal services and in war-contract industries in search of jobs suitable for physically handicapped persons. Prospective employment for persons with a history of

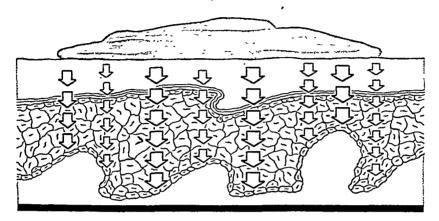
tuberculosis has been conspicuously included.

This precedent has been matched by action on the part of the National Association of Manufacturers. In the December, 1942, supplement of its Industrial Relations Bulletin, the N.A.M. indicated that various handicapped groups are a new labor source. Specific mention is made of employees who have suffered amputations, deafness, blindness, organic heart diseases, and tuberculosis. For each group, a partial list of suggested jobs is offered. The bulletin indicates that one of the parallel practices in employing handicapped workers, calls for "careful selectivity in applying the handicapped man to a job which he can do." Again the private physician and the industrial doctor are able to provide medical advice and counsel. A number of large employers have recently utilized the specific job-analysis method developed by the United States Employment Service, described above.

\*Available from the Vocational Rehabilitation Bureau Federal Security Agency, Washington, D.C., or through tuberculosis associations.

[Continued on page 658]

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[Continued from page 656]

Tuberculosis literature is not without its contributions on rehabilitation information of value to the physician. The American Review of Tuberculosis has in preparation articles prepared by the United States Employment Service, and the Federal Vocational Rehabilitation Bureau regarding their procedures in cases eligible for their services. The Rehabilitation Service of the National Tuberculosis Association is preparing special releases on the subject of patients not eligible for official serv-

Thus, the physician, when called upon to advise his patient occupationally, may utilize the services and the publications of the United States Employment Service, the Rehabilitation Bureaus, and the tuberculosis associations to good advan-

† Written especially for Tuberculosis Abstracts, by F. L. Jennings, M.D., Superintendent and Medical Director, Sunnyside Sanatorium, Indianapolis, Indiana.

#### SOCIAL AND HEALTH BUREAUS RECEIVE 59,000 INQUIRIES

Fourteen organized information bureaus in New York City answered 59,252 inquiries about the city's social and health services in 1943, Robert P. Lane, Executive Director of the Welfare Council of New York City, reported last week. His report was based on a statistical survey prepared by the Central Reporting Service of the Council.

The largest number of inquiries, 37,383, asked for referral to some specific social service, including those for health, medical, and welfare service, care of the aged, child care, recreational and vacation resources, and educational facilities.

"The fact that over a thousand inquiries a week are made of organized information bureaus in New York City is to some extent a reflection of the com-plexities introduced by the war," Mr. Lane said in releasing the figures. "In the Welfare Council's own Information Bureau, for example, there has been a considerable volume of inquiries prompted by problems of civilian dislocation, the glamor of war industry boom-town wages, the departure of family men for war services, the dazzling effect of the uniform on the susceptible adolescent, the shortage of medical and nursing facilities, and other complica-

tions arising from the war.
"The organized information bureaus in the welfare and health fields have established and maintained close contacts with the dozens of war information services set up by governmental and quasi governmental bodies in connection with rationing, civilian defense, volunteer work, facilities for men and women in the armed forces, consumer services, etc. These have proved mutually rewarding."

The largest number of requests received by any bureau during the year came to the Welfare Coun-

Out of a total of 12,513 inquiries, 8,221 were handled by the Information Bureau and 4,292 by the Council's Contributors Information Bureau, which makes confidential reports on local welfare and health agencies appealing to the public for fi-

nancial support.

The other thirteen agencies reporting, and the number of inquiries made of each, are: New York Tuberculosis and Health Association (including its Bronx and Harlem committees), 8,980; Catholic Charities of the Archdiocese of New York (Manhattan, Bronx, and Richmond offices), 6,927; Children's Welfare Federation, 6,914; New York League for the Hard of Hearing, 5,407; Legal Aid Society, 3,185; Federation for the Support of Jewish Philanders of the Support of Tewish Philanders of the S thropic Societies, 2,846; New York City Cancer Committee, 2,705; Catholic Charities of the Diocese of Brooklyn, 1,565; Citizens' Housing Council of New York, 1,511; New York City Committee on Mental Hygiene, 894; Public Education Association, 648; and Vocational Service for Juniors, 581.

About two-thirds of the inquiries were made by telephone, the figures released by Mr. Lane show. The remaining third was equally divided between personal visits and letters. The inquirers include not only individuals needing information for personal visits and letters. use, but social agencies, schools, welfare departments of business organizations and trade unions, and professional people inquiring on behalf of clients.-

Better Times

#### FRANKLIN ON COLDS

Franklin's theories on the causes and cures for the common cold are essentially the sum total of what anyone today knows about that commonplace and most widespread of diseases.

Even though he could never have heard of germs or virus, Franklin deduced that colds were carried by "particular effluvia in the air." He also believed

· that colds were contagious.

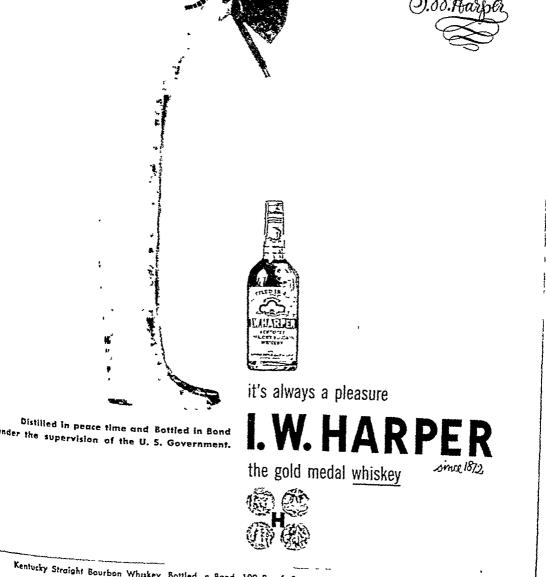
His theory maintained that colds were spread by crowds gathered in unventilated quarters and breathing foul, stagnant air. His theories on air conditioning were developed as a corollary to this observation.

In illustrating how colds may be prevented, Franklin advised frequent bathing (in an era when baths were regarded as unwholesome), regular physical exercise, sound diet, and fresh air ......

Not only was Franklin preoccupied with the cause and prevention of the common cold, but he dabbled in pharmacy to devise a treatment for it. When Samuel Johnson was stricken with "the fever and ague," Franklin advised him, in a letter dated September 13, 1750, not to "omit the use of bark too soon.'

He also added, "Remember to take preventing doses faithfully . . . If you take the powder mixed quick in a ten cup of milk, 'tis not disagreeable, but looks and even tastes like choco-

late.
"Tis an old saying: That an ounce of prevention is worth a pound of cure,—and certainly a true one, with regard to the bark."—From Benjamin Franklin's Contributions to Medical Science, prepared by the National Franklin Committee of Philadelphia



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#### **Books**

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

#### RECEIVED

The Hospital in Modern Society. Edited by Arthur C. Bachmeyer, M.D., and Gerhard Hartman, Ph.D. Octavo of 768 pages. New York, Commonwealth Fund, 1943. Cloth, \$5.00.

Pain. (Res. Publ. Ass. Nerv. Ment. Dis., Vol. 23.) Editorial Board, Harold G. Wolff, M.D., Chairman. Octavo of 468 pages, illustrated. Baltimore, Williams & Wilkins Co., 1943. Cloth, \$7.50.

Backache and Sciatic Neuritis. Back Injuries-Deformities-Diseases-Disabilities: With Notes on the Pelvis, Neck, and Brachial Neuritis. By Philip Lewin, M.D. Octavo of 745 pages, illus-trated. Philadelphia, Lea & Febiger, 1943. Cloth,

Psychosomatic Diagnosis. By Flanders Dunbar, M.D., Octavo of 741 pages. New York, Paul B. Hoeber, Inc., 1943. Cloth, \$7.50.

The Sources of Life. By Dr. Serge Voronoff, M.D. Octavo of 240 pages, illustrated. Boston, Bruce Humphries, Inc., 1943. Cloth, \$3.50.

The 1943 Year Book of Industrial and Orthopedic Surgery. Edited by Charles F. Painter, M.D. Duodecimo of 440 pages, illustrated. Chicago, Year Book Publishers, Inc., 1943. Cloth, \$3.00.

Pathology and Therapy of Rheumatic Fever, By Leopold Lichtwitz, M.D. Octavo of 211 pages, illustrated. New York, Grune & Stratton, 1944. Cloth, \$4.75.

The Arthropathies. A Handbook of Roentgen Diagnosis. By Col. Alfred A. de Lorimier, M.D., (MC), USA, Commandant, the Army School of Roentgenology, Memphis, Tenn. Octavo of 319 pages, illustrated. Chicago, Year Book Publishers, Inc., 1944. Cloth, \$5.50.

Strophanthin. Clinical and Experimental Experiences of the Past 25 Years. By Bruno Kisch, M.D. Octavo of 158 pages, illustrated. New York, Brooklyn Medical Press, 1944. Cloth, \$4.00.

Office Treatment of the Nose, Throat and Ear. By Abraham R. Hollender, M.D. Octavo of 680 pages, illustrated. Chicago, Year Book Publishers, lnc., 1943. Cloth, \$5.00.

Childbirth Without Fear. The Principles and Practice of Natural Childbirth. By Grantly Dick Read, M.D. Octavo of 259 pages. New York, Harper & Bros., 1944. Cloth, \$2.75.

Health and Hygiene. A Comprehensive Study of Disease Prevention and Health Promotion. By Lloyd Ackerman. Octavo of 895 pages, illustrated. Lancaster, Pa., Jaques Cattell Press, 1943. Cloth, \$5.00.

Medical Radiographic Technic. Prepared by the Technical Service Department of General Electric X-Ray Corporation under the editorial supervision of Glenn W. Files, Director. Quarto of 365 pages, illustrated. Springfield, Ill., Charles C Thomas, 1943. Cloth, \$6.00.

The Modern Management of Colitis. By J. Arnold Bargen, M.D. Octavo of 322 pages, illustrated. Springfield, Ill., Charles C Thomas, 1943. Cloth, \$7.00.

Applied Dietetics. The Planning and Teaching

of Normal and Therapeutic Diets. By Frances Stern. Second edition. Quarto of 265 pages Baltimore, Williams & Wilkins Co., 1943. Cloth, \$4.00.

Human Constitution in Clinical Medicine. By George Draper, M.D., C. W. Dupertuis, Ph.D., and J. L. Caughey, Jr., M.D. Octavo of 273 pages, illustrated. New York, Paul B. Hoeber, Inc., 1914. Cloth, \$4.00.

Essentials of Dermatology. By Norman Tobias, M.D. Second edition. Duodecimo of 497 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1944. Cloth, \$4.75.

A Handbook of Psychiatry. By P. M. Lichtenstein, M.D., and S. M. Small, M.D. Duodecimo of 330 pages. New York, W. W. Norton & Co., 1943. Cloth, \$3.50.

The Medical Clinics of North America. January, 44. (Chicago Number.) Illustrated. Phila-1944. delphia, W. B. Saunders Company, 1944. Published bimonthly (six numbers a year). Cloth, Pub-\$16 net; Paper, \$12 net.

Are You Allergic? By Jessamine Hilliard and Charles C. Coghlan, M.D. Octavo of 248 pages. New York, M. Barrows & Co., Inc., 1943. Cloth, \$2.50.

Care and Feeding of Children. By L. Emmett Holt, M.D. Sixteenth edition. Revised and enlarged by L. Emmett Holt, Jr., M.D. Duodecimo of 321 pages, illustrated. New York, Appleton-Century Co., 1943. Cloth, \$2.00.

By Edward F. Physiological Regulations. Adolph. Quarto of 502 pages, illustrated with diagrams. Lancaster, Pa., Jaques Cattell Press, 1943. Cloth, \$7.50.

An Atlas of Anatomy. In Two Volumes. By J. C. Boileau Grant. Volume II. Vertebrae and Vertebral Column, Thorax, Head and Neck. Quarto of 390 pages, illustrated. Baltimore, Williams & Wilkins Co., 1943. Cloth, \$5.00.

Synopsis of Obstetrics. By Jennings C. Litzenberg, M.D. Second edition. Duodecimo of 405 pages, illustrated. St. Louis, C. V. Mosby Co., 1943. Cloth, \$5.00.

Synopsis of Materia Medica, Toxicology, and Pharmacology. For Students and Practitioners of Medicine. By Forrest Ramon Davison, M.B. Third edition. Duodecimo of 759 pages, illustrated. St. Louis, C. V. Mosby Co., 1944. Cloth, 86 50

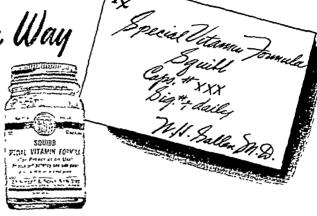
Oral Pathology. A Histological, Roentgenological, and Clinical Study of the Diseases of the Teeth, Jaws, and Mouth. By Kurt H. Thoma, D.M.D. Second edition. Quarto of 1328 pages, illustrated. St. Louis, C. V. Mosby Co., 1944. Cloth, \$15.

Traumatic Injuries of Facial Bones. An Atlas of Treatment. By John B. Erich, D.D.S., M.D., and Louie T. Austin, D.D.S. In collaboration with the Bureau of Medicine and Surgery, U.S. Navy. Octavo of 600 pages, illustrated. Philadelphia, W. B. Saunders Co., 1944. Cloth, \$6.00.

[Continued on page 662]

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<sup>1</sup> National Research Council, Reprint and Circular Series No. 115, Jan. 1943.

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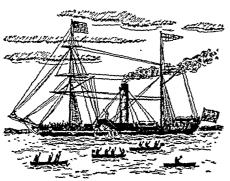
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[Continued from pape 660]

Minor Surgery. By Frederick Christopher, M.D. Fifth edition. Octavo of 1006 pages, illustrated Philadelphia, W. B. Saunders Co., 1944. Cloth

Gastro-Enterology. By Henry L. Bockus, M.D. Volume II. The Small and Large Intestine and Peritoneum. Three volumes to be published Quarto of 975 pages, illustrated. Philadelphia W. B. Saunders Co., 1944. Cloth. Price of set \$35.

Safe Convoy. The Expectant Mother's Handbook. By William J. Carrington, M.D. Octavo of 256 pages. Philadelphia, J. B. Lippincott Co. 1944. Cloth, \$2.50.

What Is Hypnosis? By Andrew Salter, Duodecimo of 88 pages. New York, Richard R. Smith, 1944. Cloth, \$2.00.

On the Influence of Trades, Professions, and Occupations in the United States, in the Production of Disease. By Benjamin W. McCready, M.D. (1837). Duodecimo of 128 pages. Baltimore, Johns Hopkins Press, 1943. Cloth, \$1.75.

Ten Lessons on Meat for Use in Schools. Sixth edition. Published by the National Live Stock and Meat Board, Department of Home Economics. Octavo of 138 pages. Chicago, 1943.

The Health of Children in Occupied Europe International Labour Office. Octavo of 36 pages. Montreal, International Labour Office, 1943.

Sulfonamide Therapy in Medical Practice. By Frederick C. Smith, M.D. Octavo of 388 pages, illustrated. Philadelphia, F. A. Davis Co.

Physiology of the Nervous System. By John Farquhar Fulton. Second edition. Octavo of 614 pages, illustrated. New York, Oxford University Press, 1943. Cloth, \$9.00.

#### REVIEWED

An Atlas of Anatomy. By J. C. Boileau Grant. Vol. 1, Upper Limb, Abdomen, Perineum, Pelvis and Lower Limb. Quarto of 214 pages, illustrated. Baltimore, Williams & Wilkins Co., 1943. Cloth.

\$5.00. Although perforce part of the material covered by this book appears in other well-known atlases of this kind, there are certain features of this one that

merit special attention and comment. They are (1) the successful attempt to simplify reproductions so that essential features stand out prominently; (2) the elimination of distortion which occurs in photographic reproduction and results in lack of proper proportion; and (3) the making of legends concise yet comprehensive.

It is an admirable work and should be a valuable addition to the anatomic library of the medical student, teacher, physician, and surgeon.

WALTER H. SCHMITT.

Oral Diagnosis. By Kurt H. Thoma, D.M.D. Second edition, revised. Octave of 495 pages, illustrated. Philadelphia, W. B. Saunders Co., 1943. Cloth, \$6.75.

This book is o reviewer has seen in many a day. Principles allumethods of examination and diagnosis are covered in an exhaustive manner, with complete informa-tion on all phases, including general physical examination and special examination for dental and oral disease. Treatment planning, diet, and medication are outlined. The book is well illustrated with many fine color illustrations demonstrating pathologic conditions of the oral mucosa, lips and tongue. This is the most comprehensive work of its kind that it has been our pleasure to examine and we would recommend it for the library of all dentists.

LAWRENCE J. DUNN

Frontiers in Cytochemistry. Edited by Normand L. Hoerr, Professor of Anatomy, School of Medicine, Western Reserve University. (Forms Vol. X of "Biological Symposia," a series of volumes devoted to current symposiums in the field of Biology.) Octavo of 334 pages, illustrated. Lancaster, Pa., Jaques Cattell Press, 1943. Cloth, \$3.50.

This symposium consists of thirteen papers written by former students of Dr. R. R. Bensley, professor emeritus of anatomy of the University of Chicago, in honor of Professor Bensley on his seventy-fifth birthday. It also contains a tribute

to Dr. Bensley and a paper by him.

Each article is an up-to-date presentation of some phase of cytologic and cytochemical investigations. Due to the impetus given by Dr. Bensley, cytochemistry has advanced tremendously in recent years. These papers include data on the anatomy, physiology, chemistry, and pathology of the living cell. This text is an important contribution to our knowledge of the subject.

MATTHEW STEEL

Introduction to Physiological and Pathological Chemistry. With Laboratory Experiments. By L. Earle Arnow, M.D. Second edition. Octavo of 574 pages, illustrated. St. Louis, C. V. Mosby Co., 1943. Cloth, \$3.75.

An excellent, well-arranged, and inclusive text that will be most helpful to students of the nursing profession. The theoretic and practical features of chemistry and biochemistry are well blended with clinicochemical methods and pathology. Of course, the subject matter is not so intensive as that undertaken by a medical student, but it follows the same trend of development, and therefore will make the nurse an intelligent chemical cooperator with the physician. It is one of the best texts on the subject.

MATTHEW STEEL

The Nature and Treatment of Mental Disorders. By Dom Thomas Verner Moore, M.D. Octavo of 312 pages. New York, Grune & Stratton, 1943. Cloth, \$4.00.

Father Moore, a priest as well as a psychiatrist, presents this readable volume on clinical psychiatry as an outgrowth of his vast personal experience in this field. The author illustrates the various technics of psychotherapy with well-chosen case reports.

However, the reader will find this book vastly different from the usual textbook on psychiatry in the presentation of the material. New syndromes have been erected which may confuse the reader.

There is an excellent evaluation and criticism of the work of Freud, Jung, Adler, and Alexander which enhances its value.

Of questionable value are the many pages devoted to listing the standard nomenclature of clinical entities in psychiatry.

J. L. ABRAMSON

Clinical Audiometry. By C. C. Bunch, Ph.D. Octavo of 186 pages, illustrated. St. Louis, C. V. Mosby Co., 1943. Cloth, \$4.00.

Clinical Audiometry by Bunch is a small, practical, informative book. Twenty-five years of study, [Continued on page 666]

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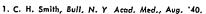
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Parsons and Hawksley, Arch. Dis. Child., Vol. 8, No. 44.
 Gyorgy, Robscheit-Robbins, Whipple, Am. Jo Phys., Apr. '38

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HERE are men and classes of men that stand above the common herd—the soldier, the sailor, the shepherd not infrequently, the artist rarely, rarelier still the clergyman, the physician almost as a rule. He is the flower of our civilization and when that stage

of man is done with, only to be marvelled at in history he will be thought to have shared but little in the defects of the period and to have most notably exhibited the virtues of the race. Generosity he has, such as is possible only to those who practice an art and never to those who drive a trade: discretion, tested by a hundred secrets, tact, tried in a thousand embarrassments and what are most important, Herculean cheerfulness and courage. So it is that he brings air and cheer int the sick room and often enough, though not so often as he desires, brings healing.

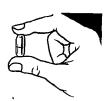
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B,-B,-B,-C

1. C. H. Smith, Bull. N. Y Acad. Med., Aug. '40.

2. Parsons and Hawksley, Arch. Dis. Child., Vol. 8, No. 44.

3. Gyorgy, Robscheit-Robbins, Whipple, Am. Jo. Phys., Apr. '38

### EULOGY OF THE DOCTOR

HERE are men and classes of men that stand above the common herd—the soldier, the sailor, the shepherd not infrequently, the artist rarely, rarelier still the clergyman, the physician almost as a rule. He is the flower of our civilization and when that stage of man is done with, only to be marvelled at in history he will be thought

to have shared but little in the defects of the period and to have most notably exhibited the virtues of the race. Generosity he has, such as is possible only to those who practice an art and never to those who drive a trade: discretion, tested by a hundred secrets, tact, tried in a thousand embarrassments and what are most important, Herculean cheerfulness and courage. So it is that he brings air and cheer int. the sick room and often enough, though not so often as he desires, brings healing.

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and physiologic viewpoints, combined with a description of the hygienic steps essential for personal health preservation.

Community health, as the name implies, covers n a dozen chapters the various activities of recognized value in a federal, state, municipal, or rural health program.

Alfred E. Shipley

Clinical Laboratory Methods and Diagnosis. A Textbook on Laboratory Procedures with Their Interpretation. By R. B. H. Gradwohl, M.D. Third edition. Vols. I and II. Quarto of 2,130 pages with index of 100 pages; 726 text illustrations and 57 color plates. St. Louis, C. V. Mosby Co, 1943. Cloth, \$20.

The third edition of Clinical Laboratory Methods and Diagnosis has appeared as two large volumes comprising 2,130 pages of text, tables, illustrations, and colored plates. In each volume there are 100 pages of index additionally. The work is a veritable encyclopedia of medical laboratory information liberally illustrated.

In each section are described several technical methods directed toward the same ends. The descriptions are clear, concise, and in great detail. The principles of the methods are explained, and the

interpretations analyzed.

Included in this edition are most detailed considerations of liver function tests, blood grouping, shock, vitamin assay and identification, examination for estrogenic substances and their effects, and virus diseases. The section on tissue cutting and staining has been rewritten by A. A. Krajian. Several authors have contributed to the sections on parasitology, helminthology, and bacteriology. This edition should prove to be of value to both the laboratory technician and the physician.

Max Lederer

Microscopic Technique in Biology and Medicine. By E. V. Cowdry. Octavo of 206 pages. Baltimore, Williams & Wilkins Co., 1943. Cloth, \$4.00.

Cowdry's Microscopic Technique in Biology and Medicine is not a book of minute detail of technic in these branches. It does, however, contain an extraordinary amount of information, much of which is unusual, yet very useful. Between its covers are contained, in a handy reference, everything from absorption spectra to zymogens, their explanation, uses, and application. It is an excellent book for the biologist and medical man in the research and general laboratory fields.

M. EDWARD MARTEN

Symptoms and Signs in Clinical Medicine. An Introduction to Medical Diagnosis. By E. Noble Chamberlain, M.D. Third edition. Octavo of 456 pages, illustrated. Baltimore, Williams & Wilkins Co., 1943. Cloth, \$8.00.

Somewhat delayed by publishing vicissitudes of the war, the third edition of Chamberlain's book, subtitled An Introduction to Medical Diagnosis, has made a welcome appearance. Although a little inferior to two similar American textbooks, it is a sound, practical volume which has served many students well and will continue to do so.

In this edition, Capon's chapter on the examination of sick children and the section on the nervous system may be singled out as of particular excellence. The chapter on clinical pathology has no place in a work of this sort and should have been omitted. The material in the chapter on radiology should more profitably have been scattered throughout the appropriate preceding chapters.

MILTON PLOTZ

## Blakiston Books

## Recent Advances in Medicine 11th Edition—Beaumont & Dodds

This new edition includes an up-todate account of the sulfa drugs and Penicillin; the chapter on Vitamins has been expanded; descriptions of the specific gravity and insulin clearance tests of renal function, the compression syndrome, and dangers in use of mercurial diuretics have been included. Additional new subjects are: Insulin and dextrose insulin tolerance tests; spontaneous hypoglycaemia and treatment; liver function tests; hematemesis; peptic ulcer; sex hormones; circulation time; blast injuries of the lungs; acid phosphatase; plasma protein regeneration; hazards of blood transfusion. Many other new subjects, new methods of treatment, etc. are included. 43 Illus. 412 Pages.

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#### Genealogy of Gynaecology Ricci

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diseased.

#### WHO WILL INHERIT THE EARTH?

Estimates of future populations have been shot to blazes by the guns of war. Revised theories have had to take into account an increased birth-rate (in this country) which began in the middle Nineteen Thirties, the introduction of chemotherapy with its promise of a reduction in mortality, the better showing made in Negro mortality, and the new knowledge of nutrition. But even then, the prediction made some years ago that by the end of the century the population will grow more slowly, then cease to grow and finally decline, is still a safe bet. Sometime in the twenty-first century we shall be an older people, which means social, economic, and political changes.

#### [Continued from page 663]

research, and collaboration by the author in this one field indicate its authoritativeness. Reviewed are all methods of testing hearing and the development and technic of audiometry. Conductive and perceptive deafness are discussed, setting forth the best opinions. Many audiograms illustrate various points. Chapters are devoted to the important subjects of audiometry in selecting hearing aids and the use of residual hearing.

CHARLES REED WEETH

The Psychiatric Novels of Oliver Wendell Holmes. Abridgment, introduction, and annotations by Clarence P. Oberndorf, M.D. Octavo of 268 pages. New York, Columbia University Press, 1943. Cloth, \$3.00.

Dr. Oliver Wendell Holmes was a very prominent and influential physician, having been associated with Harvard Medical School during his medical career. He is perhaps better known as a man of letters and as the father of the late associate Justice

of the Supreme Court.

Novelists have long used psychoanalytical themes in their works. However, Dr. Holmes was the first physician to do so. Dr. Oberndorf has published abstracts of three of Dr. Holmes' novels and has added scientific notes to supplement and interpret descriptions of psychiatric conditions in the character described by Dr. Holmes. This indeed is a novel idea in psychiatric presentation and should have a wide appeal to the intelligent public as well as to psychiatrists and others interested in the social aspect of mental diseases.

IRVING J. SANDS

Human Gastric Function. An Experimental Study of a Man and His Stomach. By Stewart Wolf, M.D., Capt., (MC), AUS, and Harold G. Wolff, M.D. Octavo of 195 pages, illustrated. New York, Oxford University Press, 1943. Cloth, \$4.75.

This book provides a grandstand seat at the conflicts occurring in the stomach involving motility and gastric secretory activity, as is rarely obtainable. The studies made by these two observers rank high among the contributions given to the literature on gastric function since the first gastric fistula observed as early as 1530.

One can adequately summarize their findings by One can adequately summarize their findings by quoting the last sentence on page 179 of the book: "Dealing actively with the patient's life situation and his reactions to it may then be adequately added as a means for the control of 'dyspepsia,' judged as a means for the control of 'dyspepsia,' jud

gastritis, and peptic ulcer."
This book is a "must" in the library of any physimin interested in gastric function—normal and

BENJAMIN M. BERNSTEIN

Personal and Community Health. By C. E. Turner, Sc.D., Dr. P. H. Seventh edition. Octavo of 585 pages, illustrated. St. Louis, C. V. Mosby Co., 1943. Cloth, \$3.50.

This is the seventh edition of a health book whose value has been recognized for two decades and is now brought up to date. It is intended primarily for health instruction at the university level and to the various age levels in the public schools.

various age levels in the public schools.

The author wisely divides his book into the two fundamental fields of personal health and com-

munity health.

The chapters on personal health discuss the main functional groups of the human from the anatomic

#### 1943's CONTRIBUTION TO MEDICINE

Last year, the greatest advance in fundamental science was to be found in medicine.

Among the many new discoveries that has placed medicine far ahead of other sciences, we find:

Penicillin received most of the popular attention given medical subjects in 1943. Syphilis, osteomyelitis, meningitis, infections of the eye and other organs and tissues were successfully treated by this new startling drug. Derivatives of the drug, patulin and penicillin B also received some attention and proved useful.

In West Africa, three British army physicians discovered in the body a hitherto unknown chemical, believed to be an enzyme, which eats up red blood cells and thus causes anemia. This discovery may pave the way to coping with the dreaded black water fever of the tropics, which like malaria shows

a dangerous reduction in red cell count.

A new means of detecting gas gangrene in its earliest stages was developed by Lister Institute in London. Certain enzymes (hayaluronidases) produced by the wound-infecting organisms can be spotted by chemical means.

A wound healer which shows promise is propamidine. It sterilizes burns that remain infected for months and permits almost immediate plastic sur-

A vaccine produced by Dr. T. S. Potter (University of Chicago) from tubercle bacilli by suffocation has been tested on animals with all types of tubercu-

losis also shows promise.

Further progress was made by Dr. Alfred Taylor (University of Texas) in the research made years ago by Dr. Peyton Rous of the Rockefeller Institute who created a sensation by revealing that when chicken tumor is passed through a filter so fine that even bacteria are held back, a fluid is obtained which when injected into chickens produces the same type of tumor. Dr. Taylor carried this one step farther by injecting a similarly obtained tumor-producing principle under the skin of mice and started tumors that grew more rapidly than transplants. This is the first time a tumor had been transplanted from mammal to mammal.

Attacking viruses—Dr. Max. A. Lauffer (Rocke-feller Institute) obtained fresh evidence that the virus diseases are caused by giant protein molecules endowed with lifelike properties of reproduction and parasitic feeding. In Sweden, workers isolated the virus of infantile paralysis from the brains of 1,000 infected mice, to discover that virtually all young mice are virus carriers and the probability that the virus may remain quiescent before it becomes virulent and attacks the spinal cord and brain. To some of the twenty and more viruses known to plague man, Drs. Murray Sanders and R. C. Alexander added what has become known as "shipyard conjunctivities."

Celiac disease normally treated with banana diets, has been subjected to a bananaless treatment. Crude extracts of liver and B complex vitamins were injected. The rate of recovery was reduced from months and years to as short a time as a month.

Rivalling sodium dilantin, a new formula of diglutamic acid hydrochloride was found helpful in cases of epilepsy, although its use appears effective only in cases of petit mal and psychic attack. It lacks sodium dilantin's effectiveness against "fits."

A more effective method of using the blood collected for banks was made known by Drs. John J. Moorehead and Lester J. Unger of New York. They found that the previously discarded red cells are useful as a dressing for raw and potentially infected surfaces.



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#### POSTURE—THE INDEX OF EFFICIENCY

Martha Parker in the New York Times described perfect posture, in the language of industrial medicine, as a prerequisite to the safe performance of any job. In the language of beauty, she added, it is a prerequisite to grace.

Recent surveys made by health departments in a number of war plants disclosed evidence that posture is also an index of efficiency. "In just about every case where a woman worker complains about fatigue and aching muscles," stated the personnel director of a large manufacturing plant, "we found the cause

was bad posture."

Beauty and health experts were called in by industry to act as physiological "efficiency experts" for the women workers and succeeded in improving the carriage and the figure too. Waistlines became slimmer, chests higher, and in not a few cases the shapliness of limbs as noticeably improved.

"The findings of these experts and the corrections they made," comments Miss Parker, "are funda-mental ones that apply to all women in wartime, for there is little difference really, in lifting a tote-box full of instrument parts and picking up a basket full

of the family wash."

Practically all American women are guilty, to an extent, of posture faults, according to an industrial health director, but it took the pressure of war with its need for factory workers and stress on top efficiency, to focus real attention upon them. No doubt, the same mistakes have for years been causing fatigue, pain, and awkwardness to housewives and office workers. Today, in several firms, counselors assigned especially to the job of aiding women workers on their personal problems, stroll through the shops, suggesting here and there that a spine be

straightened, shoulders rolled back, knees relaxed,

Plant advisers suggest a series of "good posture" tricks to cure bad habits of standing, sitting, and walking.

These include the simple "backing into a wall" to cure a "question mark spine"; "log rolling" to remedy slumped shoulders and the resulting flat chest; and the "two-way pull" to overcome locked knees and the resultant swayback.

#### MEDICINE IN THE NEWS

Newsweek of January 31st published the following "note" on the use of thermometers.

"Doctors divide their patients into two classes: the thermometer ostriches and the thermometer peepers. The ostriches are persons who don't want to know if their temperatures soar; the peepers are those who will stop at nothing in order to see the bad news with their own eyes. Last week a story related

by Gen. Dwight D. Eisenhower classified both President Roosevelt and Prime Minister Churchill

as chronic peepers. "At Marrakech, Morocco, the general recalled for London reporters, Lord Moran, Mr. Churchill's chief physician, objected that whenever he approached the Prime Minister's bedside to read the thermometer the patient beat him to the draw by quickly pulling it out and announcing the degree of fever himself. 'I always do that,' the British leader confided. 'I believe these doctors are trying to keep

me in bed.' "General Eisenhower told the story to President Roosevelt as a further example of the Prime Minister's self-reliance. 'Oh, that's nothing new!' Mr. Roosevelt retorted. 'I've been doing that for years.

I don't trust those fellows, either."

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#### MORE WOMEN TAKE HIGHER LEARNING

Enrolled students in 674 approved colleges and universities dropped 38.6 per cent in one year-from a total of 750,233 to 460,848 in 1943. Including part-time and summer session students the number of scholars fell off 30.5 per cent-from 1,074,983 in 1942 to 746,831 last year.

These facts were published by Dr. Raymond Walters, president of the University of Cincinnati, in his twenty-third annual survey of attendance in

America's institutions of higher learning.

The enrollment losses would have been considerably greater had not more women flocked to colleges and universities in unprecedented numbers last fall, Dr. Walters pointed out in his report.

In the five educational fields of arts and sciences, engineering, commerce, agriculture, and teachers' colleges—the number of freshmen fell off from 130,-143 to 46,609; a loss of 62.6 per cent in one year. During the same time, first-year women jumped from 86,234 to 92,240; a gain of 6.5 per cent.

#### FRANKLIN ON MESMERISM

One of Franklin's sagest observations on the subject of medicine was that "Quacks are the greatest liars in the world-except their patients."

Accordingly, he was instrumental in debunking the "animal magnetism" therapy cure practices by

Friedrich Mesmer.

Early in 1784 Mesmer's cult was a tremendous fad in Paris, numbering Lafayette and nobles of high rank in his following. Franklin, as a member of the Royal Medical Society of Paris, was appointed by King Louis XVI to serve on a commission examining Mesmer's doctrines and experiments. It was largely through the sagacity of Franklin's report that the charlatan's Hocuspocus was exposed and Mesmer was forced to discontinue his practice.— Benjamin Franklin's Contributions to Medical Science prepared and distributed by the National Franklin Committee of Philadelphia

#### WOUNDS-AND C DEFICIENCY

Dr. A. H. Hunt reported in the British Journal of Surgery that immature collagen (the material that forms fibers in a blood clot) may appear in animals deprived of vitamin C, but when it fails to mature there will be only partial healing, so that wounds may break open again when subjected to strain.

The formation of the fibrous matrix of bone is also delayed when there is a deficiency of Vitamin C.

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the hard-worked executive gets back from the club." Ingenious? Well, yes, but it is still to be invented. And for someone here is an opportunity to gain fame and fortune.

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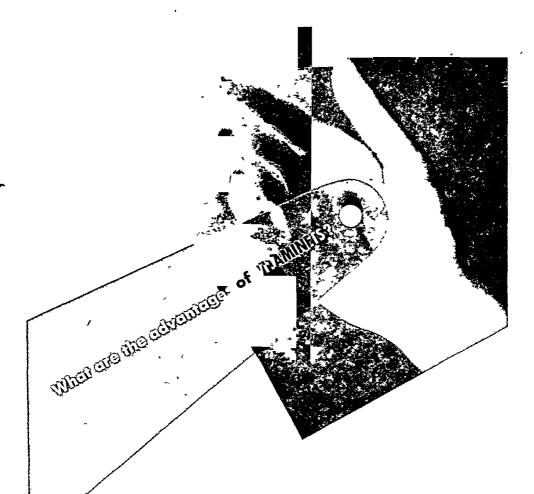
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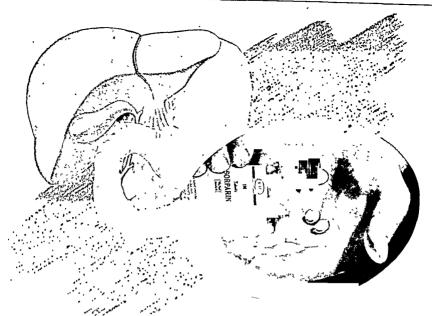
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**VOLUME 44** 

APRIL 1, 1944

NUMBER 7

731

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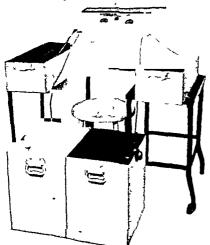


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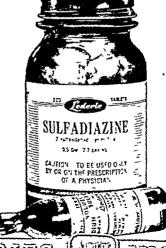
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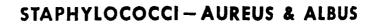












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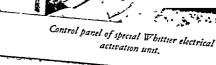
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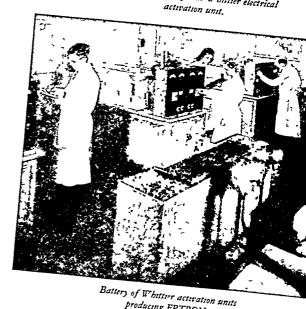
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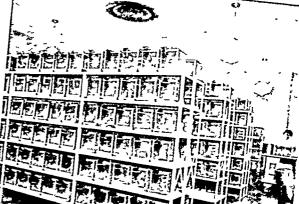






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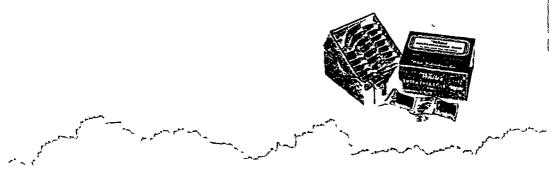
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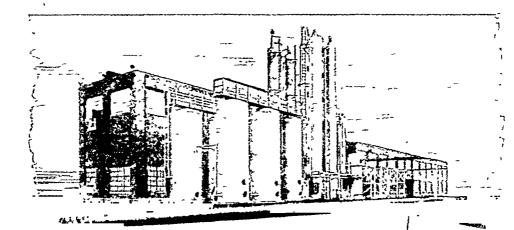
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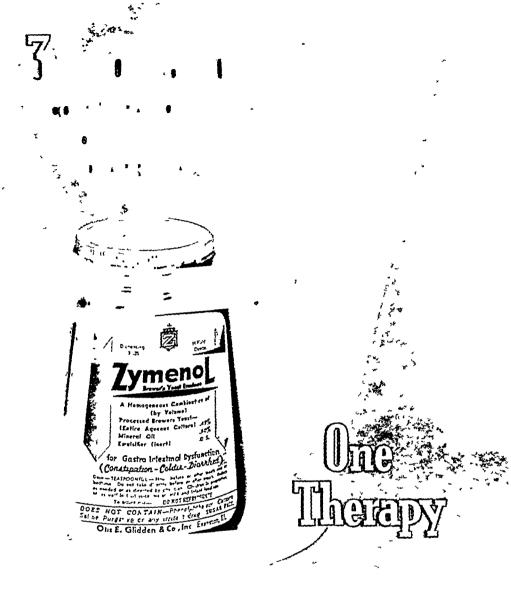
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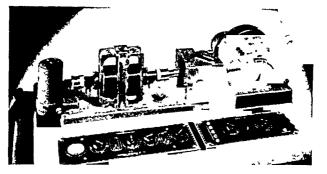
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\*A New Type of Medication to be used in Bronchial Asthma and other Allergic Conditions.—New Eng. J. Med. 223:843-846, 1940.

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# NEW YORK STATE JOURNAL OF MEDICINE

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**VOLUME 44** 

APRIL 1, 1944

NUMBER 7

## Editorial

#### Standards of Practice

Public concern with the conduct and practice of medicine is the highest compliment which could be paid to the medical profession. It is exemplified by the recent suit against the A.M.A. in the matter of Group Health, Inc., and by the more recent Moreland Act investigation of abuses under the Workmen's Compensation Act in New York State

The profession has set high standards for itself since the time of Hippocrates. No one from the outside imposed them. They were imposed by physicians upon themselves, and maintained by rigid schooling and discipline. The public has been educated through centuries to expect that these standards will be maintained. It is concerned when it believes that possible laxity has occurred. And rightly so. The medical profession belongs to the public; it is their medical profession, their doctors; the only physicians they have.

The public knows that in this State some 9,000 of its physicians are in the armed services. The public is proud to have it so; people are content that their boys should have the best of medical attention; anything less would be abhorrent and intolerable. People also want the best of medical attention for the workers of the State, the brain workers, the industrial wage earners, the producers of war and civilian goods and material. People intend to have it so, even with the medical personnel of the State depleted by some 9,000 physicians. And the medical profession sees eye to eve with them.

On page 758 of this issue the Council Committee on Workmen's Compensation of the Medical Society of the State of New York submits its study, final report, and recommendations to correct such abuses under the Workmen's Compensation Act as have been alleged to exist. Since 1933, the Medical Society of the State of New York has sought to correct "abuses which were subdivided into those over which they believed the medical profession had at the time no control, and those attributable to the medical profession." (See the report.) Free choice of physician by the employee was recommended at that time. Physicians were required "to indicate in their applications to practice the scope of their medical practice, based upon experience in medical practice and training." For the first time the county medical societies were given definite supervisory powers over the control of medical practice. Arbitration of disputed medical bills was then initiated. Provisions were made for the appointment of impartial medical experts nominated by the medical societies. It was finally recommended, among other things, by the Pool Committee that punishment be provided for rebating and fee-splitting and for other unethical practices, such as solicitation and advertising. It was recommended that medical bureaus be licensed and that x-ray laboratories be owned and operated by qualified physicians.

This latter recommendation was never enacted into law.

It was also recommended in 1935 that the

county medical societies be reimbursed by the industrial commissioner for secretarial expenses in enrolling and registering physicians and for investigation of charges filed against physicians under the Act; for the investigation of medical bureaus; for the activities of the arbitration bureau; and for the expenses of the medical advisory and appeal boards set up by the county societies in each district and for other duties necessitated by the Act. No provisions were made for such appropriations, and "even in the original appropriation," says the report, "no funds were made available for the inauguration of the provisions of the 1935 Law."

It was the opinion of the Pool Committee that the duties of the county societies were limited to "the investigation of charges filed against physicians" and that they did not include the assumption of complete police control over the profession.

The report says further:

"We are bold to state that certain recommendations which were not enacted into law would have served in a large measure to control unethical practices recently unearthed by the Moreland Commission. . . . .

"We are again urging that laymen and lay-owned x-ray laboratories have no place

in medical practice. . . . .

"We must see.... that the functions of the Department of Labor.... and the Workmen's Compensation Boards of the Medical Society are exactly defined, to the end that the compensation boards may be enabled to fulfill their function in regard to the discipline of incompetent and unethical practitioners.....

"In the past, insurance carriers, including the State Insurance Fund, have not had the courage. . . . to cooperate with the medical profession in bringing to light evidence of wrongdoing on the part of certain unethical physicians against whom there has been suspicion, although on innumerable occasions they were invited by the medical societies to submit evidence. . . . .

"Our Workmen's Compensation Bureau has repeatedly recommended the separation of the claims and medical departments of insurance carriers...."

And thus through page after page the

report sets forth the attempts of the Medical Society of the State of New York to have corrected, over the years since 1935, conditions which it knew and stated would arise from inadequacies of the Law and from the apparent reluctance of the Legislature to grant the necessary funds properly to implement what provisions did exist. Only in June, 1943, was an opinion forthcoming from the Attorney General of the State on a question on which authoritative opinion had been sought for years—namely, whether "medical society compensation boards were authorized under the Civil Practice Act, Sections 406 and 356, to subpoena witnesses and to render the oath to witnesses." Such authorization is not contained in Section 13-d of the Workmen's Compensation Law itself. Thus, only since June of 1943 has there been available adequate authority, as we have before stated, to enable the Society to proceed with the investigations and hearings of physicians charged with violations of Section 13-d of the Workmen s Compensation Law.

In the interval since 1935 the Society has not neglected its older function of the constant postgraduate education of physicians of the State. The Council Committee on Public Health and Education and its various subcommittees have made available courses designed to promote the acquisition by all practicing doctors of the latest and most up-to-date knowledge of the advances of medical science so accelerated by the war and by the nation's expanded industrial development.

There can be no compromise with the quality of medical care for the people of this State. Right now the physicians and their medical societies are doing their best to provide for the workers and the people of the State as a whole financially and medically sound prepaid medical indemnity insurance coverage. Plans to extend industrial health programs and to devise means whereby small plants may enjoy the same service as larger ones are being actively pushed in many counties.

Necessarily there is difficulty in implementing some of these desirable plans. Remaining medical men and the hospitals are sorely taxed, even working a seven-day week

and nearly a twenty-four-hour day. Nevertheless, in addition to the practical work of caring for patients, the program of postgraduate study and instruction carried on by the Council Committee on Public Health and Education of the Medical Society of the State of New York is being expanded in order that physicians throughout the State may be in a better position to render better medical service to welfare patients, to sick or injured workmen, to members of insurance plans, to rich and poor alike. Physicians are being taught by other physicians, by plant executives, by students of social science, by research men, by Army and Navy surgeons, by college professors; in hospitals, in clinics, in county society meetings, at the Annual Meeting of the Medical Society of the State of New York, whose purpose as stated in its Constitution is

"to extend medical knowledge and advance medical science; to elevate the standard of medical education; to secure the enactment and enforcement of just medical and public health laws; to promote friendly intercourse among physicians; to safeguard the professional and economic integrity of its members, and to establish and maintain them in appropriate and equitable relationship with the public, with government, and with all agencies working in the fields of health and welfare; and to enlighten and direct public opinion in regard to the problems of medicine and health for the best interests of the people of the State."

Even in wartime. Especially in wartime, that the health of the Nation may remain good and be bettered. That more efficient and advanced medical service may be available to the people. This instructional program is made available through the combined efforts of the members of the Medical Society of the State of New York, the faculties of medical schools and research institutions, the New York State Department of Health, the Dental Society of the State of New York, the Division of Industrial Hygiene of the New York State Department of Labor, and several other organizations and associations.

Copies of the Course Outline Book were distributed as follows: to officers of the Medical Society of the State of New York, members of the Council Committee on Public Health and Education and the Subcommittees, Regional Chairmen in Ob-

stetrics and Pediatrics, State Commissioner of Health, assistant commissioners and directors of divisions of the New York State Department of Health, District State Health officers, city and county Health Commissioners, physicians who arranged courses in the Course Outline Book, presidents, secretaries, and chairmen of public health and program committees of county medical societies, deans of medical schools in the United States, librarians of the medical schools in the State of New York, secretaries of state medical societies in the United States, Commissioners of Health in the various states, members of the New York State Board of Regents, New York State Commissioner of Education and directors of several divisions of the New York State Education Department, officers of the American Medical Association and members of the Council on Medical Education and Hospitals of the American Medical Association, Secretary and Executive Secretary of the State Charities Aid Association, State Commissioner of Mental Hygiene, and Commissioner of the New York State Department of Social Welfare.

The Book contains fifty-seven announcements, including outlines of courses, teaching days, and single lectures on special subjects.

In addition to the instruction offered in the Course Outline Book last year, the Committee arranged for instruction in the following subjects: gynecology, meningococcus meningitis, penicillin therapy, poliomyelitis, and tropical medicine.

Arrangements are being made to increase the instruction in penicillin therapy.

A list of physicians who will discuss subjects pertaining to home and farm accidents will soon be available.

Arrangements for postgraduate instruction, either as courses consisting of a series of lectures or as single lectures, were made for eighteen county medical societies in the following subjects: plasma therapy, tropical medicine, war medicine and surgery, obstetrics and gynecology, general medicine, orthopaedics, poliomyelitis, rheumatic fever, rheumatic heart disease, tuberculosis, nutrition, industrial medicine, cancer.

School health has received much attention. The Medical Society of the State of New York has been interested in the school health program for several years. The Council Committee on Public Health and Education and several subcommittees have concerned themselves with many programs, including the following: (a) school health service organization at the state level; (b) standardization of the physical examination for school children and other youth groups; (c) health education in the elementary and secondary schools, including a required formal course with credit in the high school; (d) the course content for health instruction in the high school; (e) qualifications for school physicians serving less than half (f) undergraduate instruction of

medical students in school health; (g) postgraduate instruction in school health; (h) school health committees for county medical societies (forty-four of the sixty-one county medical societies now have committees on school health); (i) rheumatic fever-rheumatic heart disease as a part of the school health program; (j) health examinations, including x-rays, for teachers and other personnel as a part of the tuberculosis control program, which have been receiving attention during the present year, especially by the Subcommittee on Tuberculosis and Diseases of the Chest.

If medical service to the people can be really improved, by all means let us improve it, for physicians, too, are the sovereign people of the State of New York.

#### Correspondence

Neither the Publication Committee nor the Medical Society of the State of New York is responsible for the opinions expressed in this column. All letters for publication must bear the name and address of the correspondent.

12 East 87th Street New York 28 March 2, 1944

To the Editor NEW YORK STATE J

NEW YORK STATE JOURNAL OF MEDICINE

May I be permitted to comment upon your editorial on regional ileitis in the February 15 issue of the Journal? I prefer to call this disease by its more appropriate and descriptive name of "nonspecific" granuloma of the ileum. The available facts indi-

cate that hypertrophic granulomatous lesions are encountered in infections with amebae, in infections by various strains of the dysentery group, in the group of so-called nonspecific ulcerative colitis, associated with previously existing conditions, such diverticulitis, or as a chronic development apparently unassociated with any preceding condition. In addition, somewhat similar lesions are found in other conditions in the neck and in the abdominal

[Continued on page 733]

#### Announcement

R AISING from 50 to 55 of the maximum age at which specialists can be accepted in the Medical Corps of the United States Navy was announced by Kenneth G. Castleman, Capt., USN (R.) Director of Naval Officer Procurement, Third Naval District.

He also procured that the Navy will accept for "limited shore duty, only" certain

He also announced that the Navy will accept for "limited shore duty, only" certain physicians who cannot meet the regular naval physical requirements. These doctors will be commissioned and assigned to duty at dispensaries, navy yards, naval training stations and naval and Marine Corps recruiting stations. By filling these berths they will be making available for sea and foreign assignment physically and otherwise qualified medical officers now detailed to shore duty.

Physicians seeking commissions in the Naval Medical Corps can apply at the Office of Naval Officer Procurement, 33 Pine Street, New York City, or at the branch office,

Genesee Valley Trust Building, Rochester 4, New York.

# DIAGNOSIS, TREATMENT, AND END RESULTS IN MALIGNANT TUMORS OF THE NASAL SINUSES

G. ALLEN ROBINSON, M.D., New York City

IN REVIEWING my series of 92 cases of I malignant tumors of the nasal sinuses I encountered a wide variety of clinical and histologic types. The diagnosis is rarely made early; either the patient had not presented himself for an early examination, or the family physician or dentist had not taken the patient's complaint seriously. The chief symptoms are pain in the cheek or region of the eye, nasal obstruction, and nasal bleeding and discharge. There is usually an associated sinusitis, oftentimes polypoid in nature. In the later stages there may be prominence of one cheek, protruding eye, tearing, or bulging hard palate. In about one-third of the cases metastases occur to the regional nodes or to other organs, such as the lungs, liver, brain, and spine.

Malignant tumors of the nasal sinuses occur at all ages, although the greatest incidence is found in the fourth and fifth decades. The two sexes appear to be equally susceptible to the disease.

The diagnosis may be made by a careful history and physical examination. Radiographs reveal cloudiness of the sinuses, oftentimes with thinning and erosion of the bony walls. Except in the advanced cases radiographs are only suggestive and not conclusive. In all suspicious cases surgical exploration of the sinuses is indicated. Formal biopsy is the most accurate means of establishing the diagnosis. In certain cases aspiration biopsy is helpful, although many pathologists have not yet sufficient experience to properly evaluate the results of this method. If the maxillary antrum is primarily involved there is often seen a prominence of the cheek with tenderness in the gingivobuccal fold. A simple antrotomy will expose the tumor mass and permit drainage. In other cases biopsy can be obtained from suspicious tissue seen on examination of the nasal cavity.

The majority of cases are squamous carcinoma, grades 2 and 3. There are a few instances of highly cellular anaplastic carcinomata which disseminate early. In addition to the epidermoid lesions there is a small group of sarcomas. These vary from a rather low grade fibrosarcoma to the rapidly growing angio-fibrosarcoma. In one case of myxomatous polyps the recurrences became increasingly more malignant, and after a period of six months biopsy

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943. revealed angiomyxosarcoma which metastasized widely.

There is no one method of treatment of the malignant lesions of the nasal sinuses. A plan of treatment must be outlined for each individual patient. The location, extent of the tumor, and the pathologic type will determine in a large measure the procedures to be undertaken. If the growth is not too extensive or anaplastic, radical surgery and radiation therapy would seem to be the treatment of choice. In the advanced cases and in the cellular rapidly growing cases roentgen therapy should precede operation. Preoperative radiation causes a regression of the growth and renders it less vascular at the time of operation. The technic of roentgen treatment varies, but in the average case two circular fields 7 cm. in diameter are used, one anteriorly over the cheek, and the other laterally to the side of the face. If the hard palate is involved an additional intraoral field 2.5 cm. in diameter is employed. The treatments are given in divided doses of 200 r. units daily to one field until 1,800 to 2,000 r. units have been given to each area. The other radiation factors are 50 cm. distance, 0.5 mm. copper filtration, 10 ma., and 30.8 r. units per minute.

About two weeks after the preliminary roentgen treatments are completed, the growth may be exposed surgically and as much as possible of the tumor removed. At the time of operation intracavitary radium treatment is given. In my experience the use of standard 50 mg. radium tubes has proved satisfactory. The tubes are covered with one to two cm. of packing and applied to the residual tumor areas. For example, if the antrum and ethmoid sinuses are involved one radium tube is applied to the ethmoid area and two radium tubes are placed in the antral cavity. The total dosage for one treatment amounts to 3,000 to 4,500 mg. hours. or 1,000 to 1,500 mg. hours for each tube. I have found that when the tubes are wrapped with at least 1 cm. of packing they do not give too intensive radiation to the bony walls. If residual growth is present after four to six weeks a second intracavitary radium treatment is given, or gold radon implants of 1.5 millicurie strength are imbedded into the malignant tissue. In the advanced cases postoperative palliative roentgen therapy is continued for relief of symptoms.

In the management of malignant tumors of

the nasal sinuses the general condition of the patient must be considered and careful, painstaking local treatments given. Frequent irrigations tend to lessen infection and bone necrosis. Chemotherapy has been of invaluable aid in controlling secondary infection. In many instances the final result depends upon meticulous after-care following the radiation and surgical procedures.

#### Case Reports

Case 1.—Tillie N., aged 50 years, was referred by Dr. A. Lobell on July 8, 1930. The patient had been operated on for polypoid tissue on the right side of the nose ten weeks before admission to the Manhattan Eye, Ear, and Throat Hospital, but no microscopic examination was made of the tissue removed. There was a rapid recurrence, and when first seen at the hospital the entire right side of the nose was blocked with ulcerated tumor tissue. The right cheek was slightly bulging, and on pressure on the cheek it was noted that friable tumor tissue could be extruded from the right side of the nose. Microscopic examination of the papillary mass showed hyperplasia of the mucous membrane and thickening of the epithelial layer, with marked desquamation. There was a definite limiting membrane with active mitosis of the tumor, as well as numerous thin-walled blood vessels. Edematous connective tissue was also present, and a diagnosis of papillary adenocarcinoma was made. The roentgen examination revealed destruction of outer and inner antral walls, but no involvement of the orbital plate. The ethmoid and sphenoid were also involved.

On August 1, 1930, a Caldwell-Luc operation was performed and a portion of the growth was removed. Two 50 mg. radium tubes were applied to the right antrum and one 50 mg. tube to the right ethmoid region for forty-eight hours. A week later one 50 mg. radium tube was applied to the right antrum for twenty-four hours, and on September 18, 1930, two 50 mg. radium tubes were applied to the right ethmoid and sphenoid for five hours. The total radium dosage amounted to 6,500 mg. hours.

There was a stormy convalescence following the operation and radium treatments. Tissue of the right cheek and temporal regions became infected with Staphylococcus aureus and Streptococcus viridans. Several incisions were made for drainage. During the three or four months following the radium treatments large sequestra of bone were removed.

At the present time, twelve years after operation, there is no evidence of new growth. A large defect is present in the hard palate, and there is a partial ankylosis of the lower jaw, which may be accounted for by the contraction of the muscles on the right side of the face, the loss of bony structure, and the scar tissue, which resulted from the abscess formations in the soft tissue.

Case 2.—David M., aged 54 years, was referred to me by Dr. Richard W. Moriarity on June 21, 1930. The patient had always been well except for oc-

casional head colds until March, 1930, when a rather severe hemorrhage which was rather difficult to stop occurred on the left side of the nose. After packing had been removed a friable tumor mass was discovered. Biopsy revealed cellular carcinoma grade 2, Schneiderian origin. No radical operation was done, but three radium treatments, each amounting to 2,000 mg. hours, were applied to the left ethmoid area on June 21, July 3, and July 31, 1930.

The condition gradually improved and the growth subsided; however, secondary sinusitis was present and considerable inflammation and pain persisted in the left side of the face. On March 10, 1931, both antra were explored by a Caldwell-Luc operation by Dr. Ross Faulkner, and no evidence of growth was seen or revealed by histologic examination. The right antrum contained purulent discharge, and the left antrum showed thickened membrane. However, the patient's general condition did not improve, and after consultation Dr. Douglas Quick removed the contents of the orbit because of the pain and infection. The orbital plate showed osteomyelitis, but no growth was found in the orbit. The patient has now regained his normal weight and there is no evidence of malignancy.

Case 3.—August P., aged 67 years, was referred to me by Dr. Anthony Nigro on February 14, 1940, for postoperative radium treatment for an extensive carcinoma involving the left antrum and ethmoid cells. A Caldwell-Luc operation had been performed by Dr. Nigro on February 9, 1940. The pathologic report submitted by Dr. Andrew A. Eggston revealed epidermoid carcinoma grade 4.

The first radium treatment, given on February 14, 1940, consisted of applying 110 mg. in three tubes for twenty-four hours. Two weeks later divided doses of roentgen ray therapy over a period of three months were started for a total of 5,000 r. units in one anterior and one lateral field. The factors used were 50 cm. target skin distance, 0.5 mm. copper filtration, 200 kv., 8 ma., 30.8 r. per minute, 200 r. per treatment, and a 7 cm. diameter field.

During the summer of 1940 the infection invaded the left orbit, necessitating enucleation of the eye and removal of the orbital plate on September 11, 1940. No evidence of tumor was present, only pus and granulation tissue were revealed. The patient is now in good general health, prostheses have been applied, and there is no evidence of recurrences to date.

Case 4.—Catherine S., aged 64 years, was first seen by me in St. Vincent's Hospital on September 24, 1935. During the summer the patient had developed a severe pain in the right check. She consulted Dr. John Lore, who advised admission to the hospital for a Caldwell-Luc operation. A squamous carcinoma was found filling the entire right antrum and extending into the ethmoid cells. The outer and inner walls of the antrum were invaded but not the orbital wall nor the bony palate.

Three radium treatments were given postoperatively, the first on September 24, 1935, using two standard 50 mg. radium tubes with 0.5 mm.

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platinum equivalent filtration for thirty hours. The second treatment was given two weeks later using 80 mg. for twenty hours. A month later, November 9, 1935, the last treatment was given, employing a 50 mg. tube for twenty hours. The total dosage of the three treatments amounted to 5,600 mg, hours.

The convalescence was not easy; severe pain was present for several months, requiring opiates for relief, but nearly a year later the necrotic bone became separated and the infection subsided. There has been no recurrence in the seven years since

the last radium treatment was given.

Case 5 .- Isaac T., aged 60 years, had complained of pain in the right cheek for six weeks. Examination revealed that the right cheek was prominent and a hard tumor mass could be seen in the upper gum margin. A tentative diagnosis of epulis was made, but on more careful examination a clinical diagnosis of carcinoma of the right antrum was made. Radiographs showed erosion and struction of the anterior and lateral walls of the antrum. At operation on September 25, 1934, the walls were found to be spontaneously eroded. The mass which filled the antral cavity was curetted away and pathologic examination revealed epidermoid carcinoma showing calcification and extensive necrosis. During the six months' period following operation 5,200 mg. hours of radium were used in divided doses.

The patient remained well until April, 1939, when he developed an acute attack of tonsillitis. The tonsils remained unusually large after the attack had subsided. Tonsillectomy was advised, but refused by the patient. In October, 1939, radiation therapy was started and 600 r. units were given in divided doses to each side of the neck,

The response was satisfactory.

A complete blood count on April 4, 1938, revealed 86 per cent hemoglobin, 4,300,000 red blood cells, 7,050 white blood cells, 31 lymphocytes, 8 monocytes, 53 neutrophils, 7 immature neutrophils, 1 basophil. The blood examination on October 18, 1939, showed 79 per cent hemoglobin, 4,090,000 red blood cells, 13,200 white blood cells, 52 lymphocytes, 3 monocytes, 41 neutrophils, 3 immature neutrophils, and 1 basophil.

The patient was not seen from July 10, 1940, to April 21, 1941, at which time the tonsils were again greatly enlarged and several lymph nodes were present in each side of the neck and in each axilla. There was no evidence of carcinoma in the nasal sinuses. On April 30, 1941, the blood count revealed 70 per cent hemoglobin, 3,408,000 red blood cells, 12,900 white blood cells, 81 lymphocytes, 19 neutrophils. A diagnosis of mild lymphatic leukemia was made. The response to radiation therapy to the enlarged lymph nodes has been satisfactory, the general condition of the patient is good, and the blood picture is greatly improved.

Case 6.—Stephen K., aged 7 years, was referred to me by Dr. G. B. Gilmore on April 19, 1937, for postoperative radiation therapy for a malignant tumor found involving the maxillary antrum. A Caldwell-Luc operation had been performed eight

days previously by Dr. Gilmore, and a firm vascular mass was found which extended to the orbit and had caused a slight bulging of the hard palate. The pathologic report by Dr. Jacob Geiger revealed that it was a new growth of small and large spindle cells in an edematous and hyaline stroma. The cells had apparently sprung from the periosteum of the bone. There were giant cells scattered throughout the growth; areas of necrosis and roundcelled infiltration were also present. The microscopic diagnosis was osteogenetic sarcoma.

The radiation therapy was given through three fields: one anteriorly, another laterally to the cheek, and one intraorally, using a cone 2.5 cm. in diameter. The external fields were given through portals 4 cm. in diameter. The other radiation factors were 50 cm. distance, thoraeus filter, 8 ma., 14.25 r. per minute, and 100 to 150 r. per treatment. From July 6, 1937, to December 18, 1937, a total of 8,100 r. units were given through the three

fields.

The patient is now in good general health, with no evidence of active disease. There is a slight atrophy of the right cheek due to the retardation of the normal growth by the roentgen therapy. His weight has increased gradually from 58 pounds in 1937 to 115 pounds in 1942.

Case 7.—Martha B., aged 20 years, was referred to me by Dr. Murray Last for postoperative radiation therapy on July 7, 1937. The history of the case was that in April she had noticed pain in the left cheek and on May 18 an upper left molar was removed. A few days later a small circumscribed tumor mass was noticed in the outer portion of the left orbit. On June 15, 1937, the mass was surgically removed in the Manhattan Eye, Ear, and Throat Hospital by Dr. Last. The pathologic report submitted by Dr. Eggston showed that the mass was fibrosarcoma.

The postoperative radiation therapy was divided doses of roentgen ray from July 7, 1937, to September 20, 1937, and amounted to 3,950 r. units. The factors used were 50 cm. target skin distance, thoraeus filter, 8 ma., 14.25 r. per minute, and a 4 cm. diameter field, giving 150 r. per dose. The growth was apparently radioresistant and was

not controlled by roentgen ray treatment.

On September 27, 1937, an exenteration of the orbit was done. The orbital floor was involved and the growth had invaded the left maxillary antrum and ethmoid cells. Eight gold radon implants, 1.5 millicuries each, were imbedded into residual tumor at the time of operation. Three additional radium treatments were given on October 6 and 25 and November 10, 1937. Standard radium capsules filtered with 0.2 mm. of platinum and 1.0 mm. of brass were applied. Two tubes were used at each treatment, one in the antrum and one in the orbit. One centimeter of gauze packing was placed around the tubes. The three radium treatments amounted to 3,760 mg. hours.

The convalescence was stormy and prolonged. There was a great deal of secondary infection and radiation necrosis. The patient became very weak and the prognosis seemed grave. However, even-

tually large sequestra of bone were removed from the antrum, which included most of the hard palate on the left side. The patient has gained in weight from 37.5 pounds to her normal weight of 100 pounds. Prosthesis applicators have been applied to the orbital and oral defects and at the present time there is no evidence of malignant disease present.

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2. Careful study of the microscopic structure of the tissue removed at operation for chronic sinus disease will sometimes reveal early malig-

nant changes.

- 3. Radiographic examination of the sinuses will show the extent of involvement, but the radiographs are not conclusive in early cases. They are of most value if correlated with the clinical findings.
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- 8. Nineteen patients in a series of 92 cases have survived three years or more without evidence of recurrence. In this group are included 4 cases of fibrosarcoma, one case of angiosarcoma, and one case of lymphosarcoma. A three-year survival rate of 20 per cent has therefore been obtained.
- 9. In the group of nineteen patients one patient died seventeen years after treatment with no evidence of recurrence; one patient died of heart disease seven years after treatment, free of cancer; one patient died of recurrence of cancer fifteen years after the initial treatment; one patient, well for six years, has developed a recurrence in the opposite ethmoid area; fifteen patients are living and free of the disease three to seventeen years after treatments were begun.

40 East 61st Street, New York City

#### Discussion

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because these tumors are frequently asymptomatic until they attain sufficient size to produce pain or obstruction by pressure on or invasion of adjacent structures. Many of the primary tumors, such as lymphosarcoma and transitional cell carcinoma, may remain insignificant in size for some time and the first indication of trouble is regional metastases.

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anaplastic squamous cell carcinoma.

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As Dr. Robinson has brought out, the treatment is radical; considerable discomfort to the patient and sequestration of bone can be expected. Frequently repeated applications of radium are necessary over a variable length of time.

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In the routine examination of these cases a sign of considerable importance and helpful to us is that of abnormal resilience of the palate, alveolar arch, or lateral antral wall as felt through the mouth by palpation. It is well worth looking for and will often help to confirm radiographic suspicions before acquiring the telltale biopsy.

I note that in the 7 cases cited the author frequently encountered radionecrosis and infection. This is surely a discouraging complication incident to treatment in a number of cases. I note that some of these cases date back to 1930, when we were probably all more heroic in our radium dosage; nevertheless, I cannot help but wonder if some of these unfavorable reactions could not have been avoided by using greater filtration, perhaps I mm. platinum as a minimum, on the radium element tubes. I venture to say that the author is probably using heavier filtration now.

Another useful method in selected cases, ap-

parently not mentioned in this paper, is the insertion of radium element needles of 0.6 mm. platinum equivalent through the cheek in very advanced lesions and often into the orbit in contact with the orbital plate where the tumor has broken through this structure. Such procedure often is of great help in palliating these advanced lesions.

The author's three years' arrest rate of 20 per cent is very good. At the State Institute, a recent eursory survey would indicate from 25 to 30 percent three-year arrests in a series of 42 cases seen between 1932 and 1938.

In closing I again wish to compliment the author on this very excellent presentation.

### FINGERPRINTING MEDICAL DIPLOMAS

From time to time the public is imposed upon by some charlatan passing himself off as a graduate in medicine. We have recently come into possession of a manuscript book by the late Robert P. Harris entitled Untruthfulness. Most of it concerns the fival claims of three Louisiana doctors for the credit of performing an early cesarean operation. A part is about a doctor who reported the "First Symphysiotomy in America." This doctor, who lived in an Alabama town of seventy-five inhabitants, was an Alabama town of seventy-five inhabitants, was an A.M., M.D., Ph.D., and LL.D. He was a member of the Edinburg Gynecological Society, the Dublin Obstetrical Society, the Association for the Advancement of Science, a Fellow of the Society of Arts, London, and Honorary Fellow of the Society of Zoological Research, Berlin. Upon investigation the operation was found to be entirely imaginary; the patient could not be found and the place in which the operation was said to have been performed did not exist. The "doctor" claimed to have graduated from the University of Georgia. He had matriculated there but left under a cloud. He exhibited a diploma from Western Reserve which was bogus. His local medical society denounced him as an imposter and fraud, forthwith expelling him.

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The recent case in California of J. H. Phillips is a familiar one. Phillips posed successfully as a surgeon in C.C.C. camps and in a California hospital. He was exposed accidently when he failed to conform to the peculiar California law about signing prescriptions. Upon investigation it was found that he had a long history of crimes and prison sentences.

He had secured a diploma from the University of Tennessee School of Medicine by posing as a former graduate of the school by the name of Dr. James H.

Phillips.

Dr. Maurice H. Rees, Dean of the University of Colorado School of Medicine (Journal of the Association of American Medical Colleges, May, 1943) says that such mistakes can be easily avoided by the simple procedure of having the graduate put his fingerprints on the back of his diploma when it is given to him. State licensing bodies and the National Board of Medical Examiners should also adopt the same policy. All certificates of special achievement which might be stolen and used illegally or to the embarrassment of the owner should carry fingerprint identification.

According to Rees the introduction of the fingerprint identification system to this country was
largely due to Mark Twain. In his Life on the Mississippi and Pudd'nhead Wilson he made the statement that no two fingerprints were alike and that
fingerprints did not change from birth to death.
These statements have been proved to be absolutely
correct. Unfortunately, until recently fingerprinting has been confined to criminals, so that the procedure carries with it the odor of disrepute. Now that
it has been adopted by the Army and the Navy this
method of identification should become respectable.
It would seem that now is a good time for the medical profession to adopt it. Every important document should carry the plain impressions of three
fingers of the owner's right hand as a means of identification.—Editorial in the Virginia Med. Monthly

# DRUG PRODUCES CANCER

Urethane, a drug in common use as a sedative, has been discovered to be a powerful producer of cancer of the lungs, in experiments on mice at the National Cancer Institute at Bethesda, Maryland, by Drs. Anderson Nettleship, Paul S. Henshaw, and Henry L. Meyer. Experiments with x-rays were being made on the mice, which were of a strain that never had developed more than 5 per cent of cancer cases.

Later, 90 per cent of the animals were discovered to have multiple cancers of the lungs. A

careful search was made for the cause. It proved to be the ethyl carbamate (urethane) which was injected as a sedative. The possibility of impurities being the cause was eliminated when some highly purified urethane produced the tumors. When the chemical was administered to a strain of mice which has a very high incidence of spontaneous lung tumors, the time of appearance of the tumors was advanced several months.—From "What Scientists Are Doing" in the New York Herald Tribune, Feb. 13, 1944

tually large sequestra of bone were removed from the antrum, which included most of the hard palate on the left side. The patient has gained in weight from 37.5 pounds to her normal weight of 100 pounds. Prosthesis applicators have been applied to the orbital and oral defects and at the present time there is no evidence of malignant disease present.

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TABLE 1.-INCIDENCE OF SYMPTOMS

	Present	Absent	Not Known
Fluid stools	31	3.	0
Abdominal pain	30 28 25 23	4	Ó
Sudden onset	28	6	D
Chill	25	7	2
Fever	23	6	5 2
Headache	23	9	2
General aching	22	10	~ 2 2
Nausea	19	13	~ 2
Vomiting	14	20	_0
Mucus in stool	4	9	21
Blood in stool	0	16	18

and many thousands of meals have been served since that time.

# Bacteriology

An organism of the paratyphoid enteritidis group of the type designated as Salmonella derby was isolated from the stools of four patients from the college alumni group, two members of the staff who were ill, the guest not associated with the dinners, and the one member of the kitchen staff who was not ill. Serum from three of the patients agglutinated the organism that was isolated.

Salmonella derby was first isolated in connection with the investigation of an outbreak of 37 cases of food poisoning which occurred in Derby, Belper, and Ambergate, reported by Peckham and Savage.<sup>1</sup>

In the Derby outbreak the organism was isolated from pork pie that was believed to have been responsible for the outbreak, from the tank water in the slaughter house where the pork was prepared, and from a guinea pig which had been inoculated with a portion of the incubated tank water. No specimens of feces from patients were examined, but blood from four of the patients agglutinated the pork pie bacillus.

Salmonella derby has since been reported in isolated instances from time to time in this country, in South America, and in Europe, but so far as is known it has not been responsible, previously, for an outbreak of gastroenteritis other than the Derby outbreak.

Several fecal specimens were submitted from each of the kitchen workers and the waiters in the hotel and, with one exception, all were negative. Several fecal specimens were submitted from an assistant cook who gave no history of illness, and a few colonies of the organism were found in one specimen. He would have to be considered at least a transient carrier. Whether or not he was a carrier before the outbreak could not, of course, be determined.

Unfortunately no portion of the food served was available for laboratory examination. Several specimens of water from the taps used in serving the dinner were examined and although a slight increase in the total count over the city

TABLE 2.-Age DISTRIBUTION

1 to 30												
1 to 40												
1 to 50	 		 	 	 	٠.				 	 	
ver 50												
ot known												

water was found, there was no evidence of the presence of the colon group.

### Symptomatology

In the Derby outbreak the chief clinical symptoms were reported as being pain in the abdomen and extremities, violent vomiting, diarrhea, and pyrexia. There were no deaths, but in some cases the illness was severe and lasted for three weeks.

In the hotel outbreak the typical picture consisted of a sudden onset with acute abdominal pains and severe diarrhea with watery stools. Table 1 shows the incidence of various symptoms in a group of 34 cases. This group and 5 individuals who remained well comprised exactly 50 per cent of the 78 who attended the college alumni dinner and who were personally visited by a member of the District staff or by a representative under the direct supervision of the District Office. It is the data relating to this group which have been analyzed and are presented in the tables. Chills and fever occurred in about two-thirds of those who were infected. Among those whose temperatures were taken the range of maximum temperature was from 101 to 104 F. Generalized aching of a "grippy" nature and headache also occurred in about twothirds of the cases. Nausea and vomiting were of less frequent occurrence. Four of the patients stated that they had noticed mucus in the stool. No one noted the presence of blood. Most could give no information relative to the appearance of the stools. Of the 88 per cent of the patients who reported diarrhea, two-thirds had had between five and ten stools in one day and one-third more than ten, the greatest number reported being thirty in one day.

Three months after the outbreak a survey of 29 cases was made to determine the duration of illness. The average period of illness in these cases was twelve days. Five patients of this group had definite relapses after initial complete freedom from symptoms and two more gave a suggestive history of relapse. Among the 29 patients who were visited in the resurvey, there were 3 cases of severe sore throat apparently associated with the gastroenteritis. There was at least one case of sore throat in the insurance group. One patient reported illness lasting for a period of eighty-four days, and one patient developed an empyema which lasted for seven

### A HOTEL OUTBREAK OF GASTROENTERITIS DUE TO SALMONELLA DERBY

F. E. Coughlin, M.D., Albany

THE occurrence of an outbreak of communi-L cable disease due to food or water in a large city hotel presents important problems to the administration of the hotel and to the health official. Unfavorable publicity may mean a serious loss of patronage to a hotel which may be operating on a very small margin of profit. The hotel also faces the possibility of numerous legal procedures to recover real or imagined damages. Even though they may be covered by insurance, hotel owners find such suits very unprofitable. What is more important from the standpoint of this report is the fact that the health official faces the problem of making a satisfactory investigation at a time when those exposed to the infection may have scattered to homes in widely separated localities.

An outbreak of gastroenteritis, which occurred among the guests of a New York State hotel in May, 1940, presented these problems to the hotel management and to a district office of the New York State Department of Health. On May 9 a report was received that one of the workers in the Division of Laboratories and Research of the State Department of Health was ill with diarrhea following a dinner at this hotel, and an

investigation was instituted.

It was learned that the dinner, held by a college alumni group, had been attended by 78 persons, largely composed of clergymen, physicians, lawyers, and other professional people, including special representatives of the college residing in various communities both within the Albany district and outside. Of those who attended the dinner 34 were from Albany, 14 from Troy, 9 from Schenectady, 5 from scattered communities in the Albany district, 12 from other communities in New York State, and 4 from Massachusetts. After investigation it was found that 70, or approximately 90 per cent, of the 78 persons who attended the dinner became ill with gastrointestinal symptoms.

Although two other dinners were held at the hotel the same evening with practically the same menu as that served to the college alumni group and although they were served from the same kitchen, no illness is known to have occurred among those attending these two dinners. Two cases of gastroenteritis were reported following a lodge dinner held at the hotel six days later and

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District State Health Officer, New York State Department of Health, Albany, New York.

attended by 132 persons. However, fecal specimens submitted from those two individuals were negative and since none of the 130 other persons attending the dinner was known to have been ill, other sources of infection could not be excluded, and these two were not considered as a part of the outbreak. At about the same time a large dinner attended by approximately 500 persons, including high officials of the state and local government was held in the same hotel, and none of these was known to have been ill. Among the hotel staff and the regular guests, including the patrons of the main dining room and the coffee shop, there were only 3 cases discovered. Two members of the hotel staff, the chief cook, and the secretary to the Manager, and one outof-town guest, all of whom ate in the coffee shop, became ill with symptoms similar to those of the college alumni group.

About two weeks after the college alumni dinner a second outbreak of gastroenteritis occurred following a convention of representatives of an insurance company held at the same hotel. This convention was attended by 20 persons residing in thirteen cities located in five states. Two meals were served in connection with this convention. One, an evening dinner held in Parlor B on the twelfth floor, was served to 19 persons and a luncheon the same day at 12:30 P.M. in Room 2 on the second floor was served to 18 persons. (The college dinner had been held in a first floor dining room.) From reports received from the various departments of health concerned it was found that at least 10 of the 19 who ate the evening meal became ill and at least 6 were not ill. From the reports received it was not possible to determine which item of food or drink may have been responsible for the outbreak, nor was it possible to state definitely whether it was the luncheon or the dinner which was responsible for the illness. No information is available relative to bacteriologic examination on specimens from any of the persons concerned with the insurance company's dinner.

Therefore it cannot be stated definitely whether or not this outbreak was due to the same organism as the one which caused the illness following the college alumni dinner, although it seems quite possible. Since 1940 no similar illness has been reported among guests in the hotel or the dining rooms of the hotel although thousands of guests have been accommodated

reliable information in all cases as to whether the cookies eaten were cream filled or not cream filled. However, since it was known that many persons who ate cookies did not eat cream-filled cookies, it was believed that the outbreak was not due to the cookies.

Hollandaise Sauce.—Although hollandaise sauce is known to be a good culture medium for bacteria, the difference in the attack rates in those who ate the food and those who did not was within the limits of chance variation. While this item could not be definitely excluded, there was no evidence to prove that it was the source of infection.

Chef's Salad and Dressing .- In the group analyzed all of those who gave a history of eating chef's salad, with one exception, became ill, whereas only 7 of the 11 who stated that they did not eat chef's salad became ill. The difference in the attack rate among those who ate the salad, 96.6 per cent, and those who did not eat it, 55.5 per cent, was statistically significant. The assistant chef, the only hotel employee in the kitchen and dining room in whose stool Salmonella derby were found and who remained well, was in charge of the preparation of the chef's salad which was served at the college alumni dinner as well as the salad which was served at the insurance dinner. Although it does not appear to be reasonable that a carrier of this organism, who apparently had few of the organisms in his stool and who cleared up so promptly, would be in a position to contaminate salads sufficiently for an entire dinner and infect such a high percentage of those who ate the dinner without a possibility of incubation of the organism in the salad and although 7 persons who became ill stated that they did not eat the salad, it is nevertheless believed that the salad and the possibility of its having been contaminated by the assistant chef cannot be eliminated as a possible cause of the outbreak. It may be that the 7 who did eat the salad and the 3 who did not attend either dinner became ill from some other foods which might have been handled by the assistant chef even though his main duties had to do with the preparation of salads.

Ice.—Ice was manufactured in the ice-making plant of the hotel and was used in the water that was served at the dinner, in the alcoholic beverages served, and also in the celery and olive dishes. On inspection of the ice-making machine, it was found that the freezing tank, which was placed in the basement of the hotel, was located in such a position that it might be possible, in case of leaks, for sewage from the drain pipes which passed overhead to drip into the tank. While there was no evidence that there had been leaks or that water other than that

due to condensation had dripped into the freezing tank, it was recommended that the use of the tank be discontinued. This was done and since the time of the investigation all ice used in the hotel has been purchased. It was also found that storage facilities for the ice had not been given proper care. However, since this ice had been used in all dining rooms in the hotel and for other special dinners, it was not considered the source of the outbreak.

Water.—The water supply for the hotel was from the regular municipal supply which was of a safe quality. Because of the outbreak of amebic dysentery in Chicago in 1933,3-6 the possibility of back siphonage as a source of infection within the hotel was thoroughly investigated. This possibility was further suggested by the fact that the water for the college alumni dinner was drawn from a dead-end tap in the basement of the hotel. Against this possibility was the fact that the insurance dinner was held on the twelfth floor and the absence of cases among guests in the hotel other than those who ate in the coffee shop. On the other hand, there is the possibility that a "slug" of pollution might have entered the distribution system in the hotel causing infection in the basement one day, and at another time the same occurrence might have caused infection on the twelfth floor without affecting the quality of the water in other parts of the hotel.

On investigation many potential public health hazards were found in the plumbing arrangements and in the plumbing fixtures. All water for the hotel building is delivered through a sixinch pipe which passes across the ceiling of the sub-basement to a series of five pressure filters. After passing through the filters, the water is piped to a suction tank in the basement. It is then pumped to two interconnected tanks on the fourteenth floor of the hotel. From these tanks it passes through a common discharge header to the ceiling of the twelfth floor in the socalled new building or annex, and feeds several lines, extending from the twelfth to the second floor and supplying water for the guest rooms. On the second floor of the old building of eight floors is a distributing network of pipes similar to that on the twelfth floor of the new building. In this building the distribution system is similar to that in the new building except that the water is fed up to the rooms instead of down. In the old building there is also an extension of the feed main up the west wall to the eighth floor. This feeds two pipes, supplying three rooms on each floor to the second.

There are two systems of circulating ice water, one for the old part and one for the new building. The new building system is supplied from the

TABLE 3.-Individual Consumption of Each Item on Menu\*

		34 Sick Did			5 Wel	1
	Ate	Not Eat	Not Known	Ate	Not Eat	Not Know
Fruit cup	34	0	0	5	0	0
Soup	34	Ó	Ō	5	Ō	Ō
Steak	34	Ó	Õ	5	Ō	Ŏ
Potato	32	Ž	Ŏ	5	ň	Ō
Ice cream	32	$\bar{2}$	Ŏ	Š	ň	Ŏ
Coffee	$3\overline{2}$	$ar{f 2}$	ň	Š	ŏ	Ŏ
Asparagus	30	ã	ĭ	4	ĭ	Õ
Cookies	30	4	Õ	2	ā	Ŏ
Hollandaise sauce	30 29 28	$\bar{4}$	ĭ	3	ž	Ŏ
Rolls	28	ĩ		ă	ī ·	Ō
Butter	28	ī	5	ã.	ī	Ō
Chef's salad	28	ŝ.	ĭ	î	ā.	Ō
Salad dressing	28 28	5	î	ī	4	0
Water	27	ž	Ŝ.	2	ĩ	2
Mushrooms	26	รี	š	<u> </u>	$ar{2}$	Ō
Olives	21	ŏ	ă	ž	$ar{2}$	Ō
Celery	<b>1</b> 9	1Ŏ	5	ž	$ar{ ilde{2}}$	1
Cream (in coffee)	14	ŽŎ	ŏ	2	$\bar{3}$	0

months after the dinner. In this case stools and drainage from the pleural cavity four months after the onset of illness were positive for Salmonella derby.2

#### Incubation Period

The incubation period was relatively short. The shortest period was approximately seven hours, the longest forty-two hours. In 27 of the 34 cases (79.4 per cent) the onset was within twenty-four hours following the dinner.

### Age and Sex

All of those who became ill were adults and, with the exception of the manager's secretary, all were males, since only male adults attended the two dinners that were involved. shows the age distribution in 34 cases.

#### Food

Mushrooms Olives Celery Cream (in coffee)

Tables 3 and 4 show the consumption of each item of food on the menu by each individual in the group of 39 mentioned above.

Table 4 shows the attack rates of those who ate or did not eat each food item. It will be seen from the table that only a few food items can be definitely excluded as a possible cause of the infection.

Twenty-four residents of the city of Albany who were known to have been ill following the dinner were investigated by the Albany City Health Department. Dr. S. J. Gormley, Acting Health Officer reported that all of this group ate the fruit cut, soup, steak, mushrooms, potatoes, Two did not eat chef's salad with and coffee. dressing, two did not eat the asparagus and hollandaise sauce. One did not eat ice cream. One did not eat cookies. The addition of these data to Table 4 does not materially alter the result. The addition of the data received from the various health departments relative to those attending the insurance dinner also does not materially alter the findings. The following items were considered as the most important possibilities as the source of infection and demand some discussion—i.e., cookies, hollandaise sauce, chef's salad and dressing, ice, and water.

Cookies .- At first it was believed that the cookies served were cream filled. However, on investigation it became evident that several varieties of cookies were served, some of which were not cream filled. It was not possible to obtain

10 20

Those Not Eating Each Item Rate per 100 Those Eating Each Item Sick Rate per 100 87.2 87.2 87.2 87.2 86.5 Total Total 39 39 000222 . . . Sick 000222476229935112 34 34 Fruit cup 100.0 Soup Steak 39 37 37 37 34 32 100.0 32 100.0 Potato 86.5 32 32 Ice cream 86.5 88.2 3441155239 57.1 66.6 Coffee Asparagus 30 29 28 28 28 27 26 21 19 Cookies Hollandaise sauce 90.6 32 32 32 29 29 29 29 21 16 50.0 55.6 87.5 Rolls 55.6 Butter Chef's salad Salad dressing Water 66.7 60.0 93.1 89.7 81.8 83.3 87.0

87.5 90.5

TABLE 4.—Attack Rates per 100 for Each Item on Menu\*

<sup>\*</sup> Individuals who were doubtful about any item have been omitted from the figures on that item in this table.

Quinlan, J. J.: Personal communication of unpublisheddata.

3. Bundesen, Herman N., et al.: J.A.M.A. 101: 636

(Nov. 18) 1933. Bundesen, Herman N., et al.: J.A.M.A. 102: 367 (Feb. 3) 1934 Bundesen, Herman N.: Pub. Health Reps. 49: 1266

(Oct. 26) 1934. National Institute of Health Bulletin No. 166, 1936.

#### Discussion

Miss Marion B. Coleman, Albany (by invitation) -Dr. Coughlin's paper is of particular interest from a laboratory point of view since it illustrates the epidemiologic value of identifying a species that is encountered relatively rarely, and thus justifies the costly production of serums necessary for the differentiation of members of the Salmonella group. At present, more than 100 species of Salmonella are recognized. They are differentiated mainly by analysis of intricate antigenic patterns. S. derby is very closely related antigenically to the paratyphoid B bacillus and to many other species, the most common of which is S. typhimurium. They can be differentiated from each other only by means of special agglutinating serums with which the antigenic fractions may be identified.

As stated by Dr. Coughlin, S. derby was first recognized in 1923 by Peckham and Savage.1 It has been reported in the United States only within the last few years, probably because the serums necessary for differentiation of Salmonella were not available earlier. Edwards and Bruner2 recently reported the study of over 3,000 cultures of Salmonella isolated in the United States since 1934, 46 of which were identified as S. derby. These represent 33 outbreaks in fowls, 8 in swine, one in ruminants, and 2 in man. The 2 remaining strains were said to have been obtained from normal human beings. In the examination of specimens of meat from 58 retail markets in Kentucky, Cherry, Scherago, and Weaver<sup>1</sup> recently reported finding 8 species of Salmonella, mostly in pork products, from 13 markets. S. derby was isolated from 2 specimens, a hog's brain and a pork chop. This species has also been found in tissues of normal hogs in Germany' and South Americas and has been reported as the incitant of infections in young turkeys in Minnesota<sup>6</sup> and California.<sup>7</sup> In 1939, Hormaeche<sup>8</sup> reported its isolation from stools from 16 children in South America, at least some of whom had enteric disease. Bornstein and his coworkers in New York City' and Borman and his associates in Connecticut10 have identified 5 and 3 strains, respectively, of S. derby of human origin. In the Division of Laboratories and Research in Albany, 5 strains have been identified in addition to that inciting the outbreak described by Dr. Coughlin. These were from sporadic cases of gastroenteritis that have occurred during the past three years, and no information is available regarding the source of the infections.

Most of the Salmonella other than the paratyphoid A bacillus have been found in both animals and man and more frequently in the former than the latter. Although the paratyphoid B bacillus is usually regarded as a parasite of man, it has occasionally been reported in animals also. existence of chronic human carriers of paratyphoid A and B bacilli is an established fact. Other Salmonella have occasionally been isolated from stools of normal individuals and therefore human carriers must be recognized as a potential source of infection although epidemiologic studies seldom indicate transmission from person to person. The frequency with which various Salmonella have been found in tissues from apparently normal as well as diseased animals and birds suggests that they constitute the main reservoir.

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# HEALTH SERVICE ORGANIZED FOR ECUADOR'S RUBBER AREA

Five dispensaries have been opened in northwest Ecuador for rubber workers, according to reports to the Institute of Inter-American Affairs, Washing-

Seventeen dispensaries now are operating in the Ecuadoran rubber area, through the cooperation of the Ecuadoran government and the Institute, which is an agency of the Office of the Coordinator of Inter-American Affairs.

Each dispensary is staffed by a physician trained in tropical disease control, usually assisted by a labomtory technician. Dr. Curtis E. Sauer, head of the Institute's medical section in the Ecuadoran area, reports that in one month 920 patients were treated in the dispensaries.

The new dispensaries are in Tena, Province of Napo-Pastaza; Concepcion, Province of Esmeral-das; and in Cojimines, Coaqui, and Jama, in the Province of Manabi.

"Practicantes" have been stationed at six rubber centers. The practicantes are specialized medical assistants who distribute medicine and administer minor treatment.—Release from the Office of the Coordinator of Inter-American Affairs

main line from the roof tanks, the other from the main leading to the basement suction tank. Ice water from the circulating system was not used in serving the two dinners.

The fire supply piping system is separate from the domestic supply and has no fixture connections to it.

Most of the fixtures below the second floor in the old building are supplied from the tanks on the fourteenth floor, whereas most of the fixtures below the second floor in the new building are fed directly from the supply main in the basement ahead of the filters.

There was a direct connection between the overflow pipe of the suction tank in the basement and a sewer which is subject to possible surcharging during storms. In the top of the tank was an open manhole through which pollution could be accidentally or willfully placed in the There were some six small pipe lines discharging into the tank, which delivered water which had passed through the cooling coils of either the ice machines or various engine cylinder heads. There was a direct connection between the sanitary sewer and the water supply that serves the air conditioning equipment in the subbasement. There was a hydraulic sewer ejector located in this sub-basement that had a direct connection with the water supply.

In the investigation 797 unsatisfactory connections through plumbing fixtures were found, including unprotected flushometer-operated toilets and lavatories and bathtubs with water inlets below the rim. In the case of a negative pressure developing, these fixtures constituted a

potential public health hazard. No unusual occurrence was known to have taken place prior to the outbreak of gastroenteritis which might have produced back siphonage. In order to determine whether or not negative pressures might develop during the normal operation of the hotel, vacuum and pressure recording gages were placed at several points on the eleventh and twelfth floors of the new building and on the top floor of the old building and recordings were made for two or three consecutive days in each location. In the new building the charts showed very small variations in pressure. The charts from the old building showed wide variations mostly in the nature of surge waves above the average pressure with no evidence of zero or negative pressure in either case.

It is believed that these results indicate that no back siphonage would be expected in this hotel under normal operating conditions. Unusual conditions such as large breaks near the base of any vertical riser or fire demand would undoubtedly produce partial vacuum in portions of the system affected by the unusual conditions. A partial vacuum might be created on the risers feeding the new building if the supply tanks were temporarily shut off for servicing or other reasons. However, none of these conditions was known to have taken place prior to the outbreak.

#### Conclusions

It will be seen that this outbreak presented an overabundance of clues, making a clear-cut solution of the problem most difficult if not impossible. Because of the scattered residences of those who were exposed, the investigation required the assistance of several district offices in New York State and fifteen city health departments located in five states. This resulted in a lack of uniform data for all persons exposed. It is believed, however, that the data presented constitute a fairly adequate sample of the whole.

From these data it would appear that the most reasonable conclusion is that the outbreak was caused by infection introduced into the chef's salad and possibly other foods by the food handler who was a temporary carrier of the organism.

# Summary

- 1. A hotel outbreak of gastroenteritis consisting of 83 cases including 70 of the 78 persons attending a college alumni dinner and 10 of 19 attending an insurance company's dinner, 2 members of the hotel staff, and a guest at the hotel.
- 2. The causative organism, Salmonella derby, was first reported in 1923 as the cause of an outbreak of gastroenteritis due to the eating of pork pie in Derby, England, and has been found in isolated cases since that time, but as far as is known had not been responsible for an outbreak in this country.
- 3. Although many unsatisfactory conditions in the arrangement of the plumbing and in the plumbing fixtures created potential public health hazards, there is no evidence that any backsiphonage did actually occur in connection with this outbreak.
- 4. It seems probable that infection was due to cher's salad and possibly other food handled by a food handler who was a transient carrier of Salmonella derby.\*

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- Peckham, C. F., and Savage, William G.: J. Hyg. 22: 69 (Oct.) 1923.
- \* Acknowledgment is made to the members of the Albany District Office staff, especially Dr. John A. Degen, Jr., now in England, who assisted in the investigation, to the District Health Officers, the staff of the Division of Communicable Diseases, Division of Sanitation, and the Division of Laboratories and Research of the State Department of Health, and the several local and state health officials who contributed to the investigation.

mode. Some must be immobilized by casts or traction, some are stuporous, or prostrated by shock, fever, or anemia. Except in the moribund, these latter states rarely last more than a few days. Thousands are confined to absolute bed rest, not by necessity or choice, but by the doctor's orders.

More vividly than others, the pathologist is aware of the cost in lives of this form of therapy. In the last 300 autopsies on adults in this hospital 15, or 5 per cent, died of pulmonary embolism secondary to thrombi in the legs or pelvis. At the San Francisco Hospital, Westdahl demonstrated such pulmonary emboli in 13 per cent of the autopsies, and in 3.5 per cent they were the immediate cause of death. In another 3 per cent there were pulmonary emboli from other sources, such as the right auricle or axilla.

Pulmonary embolism is very rare in ambulatory patients, or even in those who lead wheelchair lives. Even with heart disease or varicose veins and hemorrhoids, pulmonary emboli are rare as long as the patients are ambulatory, even though thrombosis of the veins occurs. Those who treat varices by thrombosis have learned not to put the patients to bed.

Swiss and German pathologists have given us excellent data on the etiology of these accidents and their relation to bed rest. Autopsies with complete leg dissections show that 30 per cent of all hospital cases, ages 17 to 90 years, have thrombi in the veins of the calf; in adults who have been in bed two weeks or longer the incidence reaches 60 per cent, while nearly all show necroses and inflammatory reaction in the calf muscles, which apparently initiate the process. In 10 per cent thrombi are found only in the veins of the foot, and none are ever found in the dorsum of the foot. Only 2 per cent have thrombi in the hypogastric or iliac veins without clots in the legs. The incidence of thrombi goes up with age, doubling after 40, and again after 60.

Thrombi, if unilateral, are twice as common in the right calf or thigh as the left, and 30 per cent more often in the right foot. This is presumably because people in bed tend to spend more time lying on the right side than the left. Pulmonary emboli, however, come from the left femoral vein as often as from the right, and from the left iliac ten times more often than from the right. This means that propagation into the iliac vein and formation of emboli are very high on the left side in relation to the total number of thrombi formed. Perhaps the fact that the right iliac, unlike the left, does not pass behind the iline artery has comething to do with this. Pulsations coming down the vena cava may be blocked where the artery compresses the left iliac vein, thus leading to a quieter flow and less movement of the wall when we are recumbent.

At the New York Hospital about as many people die of massive pulmonary embolism as of cancer of the stomach or of bacterial endocarditis. There is not a shadow of doubt that these deaths are due to a therapeutic measure—complete bed rest. Other deaths, probably equalling these dramatic ones in number, follow bed rest as indirect sequelae, bronchopneumonia being the most common sequel.

While bed rest has little hazard to life in child-hood, it becomes increasingly dangerous with advancing years. Absolute bed rest kills more patients than anesthesia and all the drugs in the pharmacopoeia added together. Obviously such a hazardous agent must be used only for precise indications, and then its value should be weighed against its risks. The necessary measures to be taken to diminish the morbidity and mortality of those who really must have bed rest are also of great importance, and perhaps one of these exercises will be devoted to their discussion; at this conference only the hazards and the indications are under scrutiny.

What do we expect to accomplish therapeutically by bed rest prescribed for people who are not comatose or prostrated? The effect of absolute bed rest, as compared with rest combined with sitting up and using a commode, seems not to have been studied. It does not significantly reduce the calories liberated per day. It does not reduce the total cardiac output, which may be higher when the patient is recumbent than when he is sitting or standing. Effects on blood pressure and pulse rate are negligible. Thoracic breathing and cough may be increased by sitting up, and these are matters of importance in some phases of pulmonary tuberculosis. One wonders whether this possible effect is not outweighed in the afebrile cases by the improvement in morale, appetite, and the muscle and vasomotor tone which results if the patient can sit up for some meals and for half an hour or more twice a day.

In cardiac cases, both of myocardial infarction and congestive failure, pulmonary emboli are very frequent. It is well known that people with heart failure are more comfortable sitting than lying, as are most asthmatic patients. There is evidence that the circulatory burden is least and respiration is easiest when they sit and lean forward. The anatomic and physiologic basis for this is quite obvious, and sitting probably diminishes pulmonary edema and the formation of pleural fluid. It is far more work to stay propped up in bed than in a chair, and these cases usually are most comfortable with a table to lean on. Edema of the legs will accumulate in

# Therapeutics

# CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the May I issue and will concern "Chemotherapy of Infections of the Urinary Tract,"

### Use and Abuse of Bed Rest

Dr. Harry Gold: The subject of the conference today is "The Use and Abuse of Bed Rest."

Most therapeutic measures are double-edged swords. They can do harm as well as good. One hardly ever thinks of using a drug without some consideration of its dangers. This applies not only to drugs but also to radiation therapy and physical therapy.

But the bed as a therapeutic device, as a means of providing rest, is usually taken for granted. We often debate the question whether or not the patient will profit by going to bed, but the decision as a rule does not consider the dangers of going to bed.

The conference today is planned to point out the necessity of weighing carefully in every case the possible advantages of the bed as a means of securing rest against its disadvantages. The implication is that many conditions now treated with bed rest could be better treated in other ways.

Prolonged confinement to bed comes into direct conflict with physiologic conditioning. We all know that confining a patient to bed creates problems. The effect on the morale is not the least important one. The patient in bed who says, "I look longingly at that chair," touches on the fundamental issue. There are gastro-intestinal problems, constipation, distention, and the serious issue of the bedpan. Genitourinary disturbances are common: urinary retention, the difficulty that many patients have voiding in bed. There are orthopaedic back aches and muscle cramps which arise from abnormal pressure when the patient is in bed. Pulmonary disorders occur, especially hypostatic congestion of the lungs. There are circulatory problems. The latter are particularly noteworthy in patients with failure of the left side of the heart. The doctor sometimes finds the patient sitting in a chair. Too often he puts him to bed, whereupon the patient proceeds to suffocate.

Dr. Dock is going to open the discussion with

some of his observations relating, I believe, chiefly to the dangers of rest in bed.

Dr. William Dock: Man's perversions from normal mammalian or even simian behavior make him the scandal of the biologic world. He not only walks erect like birds and the anthropoids, but continues to drink milk all his life, to eat eggs, and to make love at all seasons. He uses drugs such as nicotine and caffeine daily, alcohol and cathartics almost as often, and sometimes to great excess. In the past century he has outdone himself with new perversions. He has increased his maximum velocity of movement from 18 miles an hour to 60 and then to 500, the hazard increasing roughly as the cube of the velocity. He has taken to living and working on mountain tops and deserts; he rises to heights where the barometric pressure is one-fifth normal, and dives to depths where it is ten times normal. Unlike all other mammals, man sleeps on his back, and lies recumbent when ill. Until the Florence Nightingale era the sick usually got up several times daily for elimination, if not for meals; but, thanks to nursing progress, thousands of people now lie recumbent, at absolute bed rest, for days, weeks, or months. As with all the other perversions from biologic normality, this too must be paid for by discomfort, invalidism, and death.

Bed rest robs the bones of chalk, as it causes an immediate, severe, negative calcium balance. It greatly weakens vasomotor tone and wastes the voluntary muscles. It causes hyperemia, edema, and collapse of the dorsal parts of the lungs. It predisposes to ulcers of the skin and to hypostatic pneumonia. In elderly men it often precipitates severe symptoms of prostatism, and it is a notorious background for many cases of cathartic habituation. The effects on the psyche of this unnatural way of life are noted even by laymen like Tolstoi, Henry Adams, and Balzac.

Few patients are so ill that they prefer bed rest to sitting in a comfortable chair; fewer still prefer the urinal and bedpan to the bedside com-

Dr. Dock: It is effective but hazardous.

Dr. Wolff: In the case of a person with a vascular accident in the head there is no reason why the person should not be allowed to get up if he has the will. Indeed, in older persons it is a great menace to keep the patient in bed one hour longer than necessary.

Another aspect has to do with head injuries. I used to teach that a man ought to stay in bed for a week for every hour of unconsciousness that he sustained following a blow on the head. The slogan in textbooks is, "Lucky is the man who breaks his leg when he breaks his head," the implication being that we ought to keep him in bed long enough to allow him to recover from the awful shock. As a matter of fact we know patients who have been kept in bed eight, nine, or ten weeks and then have had a very hard time adjusting themselves to the upright position, both physiologically and symbolically. They have a hard job getting back to work.

The practice in the Army and Navy at present is to get a man on his feet just as soon as possible following a head injury; that is, when he expresses the inclination. The results are far better with regard to the posttraumatic sequelae, the dizziness, and the confusion states that used to be common after prolonged bed rest.

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Dr. Janet Travell: It has been reported that 10 per cent of cases with acute coronary thrombosis develop a painful or frozen shoulder syndrome. This complication is apparently due to spasm of the skeletal muscles, since it responds to local infiltration of the affected muscles with procaine, just as it does in cases without demonstrable heart disease. It is likely that one of the most important factors in the development of this syndrome is the complete immobilization of the shoulders which is usually enforced in the patient with an acute cardiac infarct who is confined flat on his back in bed. I believe that regular, gentle, active motion of the upper extremities would do much to prevent the appearance of muscle spasm and pain in these cases.

VISITOR: I should like to ask Dr. Dock whether this has not been his experience: that bed rest hazards apply particularly to people with some circulatory deficiency.

Dr. Dock: Most surgical patients do not have circulatory deficiency.

VISITOR: In surgical cases the trauma or perhaps the anesthesia might be related to it.

Dr. Dock: I think it is not so much anesthesia as the profound narcosis induced with morphine. Because of the pain and the sedation surgical patients lie like logs. I think that is the reason they get into trouble.

Two per cent of the women with breast amputations have emboli from their legs. That operation is a pretty long way off from the legs and there cannot even be a question of immobilizing the leg from pain. There is no pain in the belly or leg from mastectomies. It is just that those women are given morphine and kept very quiet, and that permits the emboli to form. It has less to do with the type of operation than with how quiet the patient is kept after it. Most patients are kept very still for some time and the result is that hernias and appendectomies supply the vast majority of emboli.

Visitor: It is my impression that in tuberculosis thrombophlebitis and pulmonary emboli are quite unusual except in the very ill, very toxic patients, and in the more or less terminal

Dr. Dock: Five per cent of emboli in medical cases were in tuberculous patients. Those were almost all fatal. It is true that tuberculosis patients are usually under 50, which is all in their favor, and quite a lot of them are fairly restless in bed. Those not desperately ill like to read and keep very active so that sand bags are used to keep them quiet. I think they have a better outlook than the patients who are kept under deep narcosis and sedation.

Dr. Wolff: It is customary to put a man with detached retina on his back for at least several weeks. Do you think that is necessary?

DR. JOHN M. McLean: It is necessary to maintain the static position of the eye, but it is not necessary to fix the rest of the body. There is no way surgically to suture or otherwise solidly fasten the retina to the choroid underneath. The best thing to do is to take areas of adhesive choroiditis and so place the retina that it will lie in contact until enough healing has taken place for the two to be scarred together. If the position of the head or the eye is changed, the retina will fall or float off again.

Dr. Wolff: Merely nodding or wagging the head will do that?

Dr. McLean: That will do it. But almost any kind of motion with the arms and legs will do no harm. In institutions like this one, where we try to avoid immobilization (and it can be done with the proper suturing, proper bandaging, and proper care) these are almost unheard-of complications.

The incidence of trouble in our eye cases was very low. It is true that many of the patients were old, but pulmonary emboli were nevertheless not common. I think that pneumonia, too, was rare.

DR. GOLD: You may be interested in some figures that Dr. Berger gathered for us from a group of 1,500 ambulant cardiac patients in our

many while they are sitting, which then must be permitted only for short periods unless required for obvious relief of dyspnea. Straining during urination or defecation is often greatly diminished if the patient can sit up, and such straining is a very real hazard. To avoid it the patient must be taught not to close his mouth or glottis while changing posture or emptying the bladder or bowel.

In many places it is the custom, whenever the diagnosis of myocardial infarct is made, to order the patient to bed for six weeks. Such a custom is almost as illogical as the bleedings and purgings of previous generations. If a patient is afebrile, and if he enjoys sitting up, there is no physiologic basis for having him lie in the most unphysiologic posture known—namely, the recumbent—for six weeks. No one seems to have shown whether or not fewer arrythmias, ruptures of the heart, secondary myocardial infarcts, or aneurysms of the heart occur with this conventional therapy than with one guided by physiologic principles and common sense.

In men over 50 I know that there are more complications due to absolute bed rest, and more deaths due to pulmonary embolism under the conventional scheme, than can possibly be ascribed to exercise, even in those patients who never go to bed or who go back to work as soon as the initial bout of pain and fever has subsided. I see no reason why patients with coronary disease should not sit up if they feel more comfortable doing so.

Since pulmonary emboli are notoriously common in those torpid and obese or senile people who lie in bed like logs rather than toss about as normal people do, some must actually be ordered to get up. It must be remembered that some patients with angina have attacks chiefly when recumbent. When sitting up leads to accumulation of much edema in the legs, it may also predispose to such attacks or to pulmonary edema when the fluid shifts back into the blood stream on lying down, and when night brings on its normal antidiuresis, acidosis, fall in blood pressure, and possibly in coronary flow. In these cases the longest periods of sitting should be in the morning.

In surgery the duration of absolute bed rest after many operations depends on how tight the suture line is. Wounds burst open on coughing or retching; they may burst open on standing, but I think this is an argument for advances in suture and bandage technic rather than a reason for keeping a patient lying flat for more than two or three days. Fatalities after elective surgery, such as hernioplasty, are particularly tragic. Some surgeons who create a terrible uproar if a patient dies of wound tetanus accept pulmonary

emboli with the same holy resignation with which their forefathers accepted laudable pus. I am quite confident that the future will deal with such inertia and disrespect for the Almighty as contemptuously as we do with those who regard tetanus and suppuration as mysterious manifestations of the will of God.

The recumbent posture is unphysiologic; it is, when long maintained, hazardous to the psyche, the physical well-being, and even the lives of adult patients. Since it is widely used, it claims more lives than all other therapeutic agents put together. It must be thoughtfully applied, promptly discontinued when no longer necessary, and its application must be supervised with meticulous attention to its hazards.

Dr. Harold Wolff: Dr. Dock, suppose one were put to bed for a prolonged period; is there anything you would suggest to make the adjustment back to the upright position less dangerous?

Dr. Dock: Supposing that thrombi had formed, how would you go about getting the patient up? I don't think it is simply getting up which precipitates an embolus. Anything that raises the venous pressure in the lower part of the body may do it. The Valsalva's experiment will do it very nicely. Sitting up is just another way of raising the venous pressure. If you raise the venous pressure after it has been low for a long time you suddenly expand the wall of the vein, and peel the thrombus loose. If the thrombus is not firmly attached, there is not much you can do about it. The first time the venous pressure goes high it may be stripped off.

Prophylaxis seems to me to be entirely a question of management of the patient while he is lying down rather than of trying to avoid the unavoidable situation in which the venous pressure of the legs is precipitately raised. Whether that occurs with straining on the bedpan or occurs the first time one sits up does not matter much.

DR. Gold: Dr. Dock, what do you think about the routine treatment of patients who have to lie in bed for a long period of time, with anticoagulants like dicoumarin?

DR. DOCK: I think it is most unphysiologic treatment to have the patient lie in bed for a long time and then on top of it to stop the coagulation mechanism. It is adding one insult to another. It may have some prophylactic value but the hazards of being without the clotting mechanism are obvious. I personally would prefer some more physiologic method for preventing the forming of clots, rather than the use of anticoagulants.

Dr. Gold: I was thinking of patients for whom lying in bed is imperative.

Dr. Dock: It is effective but hazardous.

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Dr. Gold: You may be interested in some figures that Dr. Berger gathered for us from a group of 1,500 ambulant cardiac patients in our

clinics. Ten per cent of the group, or 150 of them, had auricular fibrillation. In one year in the latter group we encountered fourteen vascular accidents. Nine were on the arterial side; most of them were in the brain, and of these nine, five occurred while the patients were up and about, and four while they were in bed. Whether these patients were in bed or up and about did not seem to matter. We had 5 cases of pulmonary embolus. All of these were in patients who were in bed at the time and for periods of eight, fourteen, twenty-one, twenty-eight, and thirty-three days, respectively. There was not a single pulmonary accident among the remainder of the 1,500 patients in one year.

Dr. Dock: How many of the total were put to bed?

Dr. Gold: I don't have that figure, but there were 150 patients with auricular fibrillation who were ambulant. Some of those were sent to bed from time to time for special observation. Five cases of pulmonary embolus were encountered in a year, and they all occurred when the patients were in bed and not when they were up and about. It is noteworthy that these patients were in bed for special observation, not because they were so ill as to require confinement to bed, although there may be some relationship between the severity of circulatory failure and the tendency to thrombosis.

Dr. McKeen Cattell: I should like to ask what can be done in the way of physical therapy to counteract the effects of bed rest? That would seem to be a golden opportunity for the

physiotherapist.

Dr. Dock: Something certainly has to be done about the legs. Apparently the main problem is to keep the weight of the legs from pressing on the calves and thigh muscles for any long periods day after day. That seems to be the source of a good deal of the difficulty. If the patients themselves would do regular exercises with the legs and change positions often, I think it would diminish the incidence of that sort of trouble.

I don't believe occasional massage would make much difference.

DR. C. H. WHEELER: How much difference do you think it would make to employ the Trendelenburg position for bed rest instead of the horizontal?

Dr. Dock: I think if the legs are propped up there still is pressure on the calf muscles.

DR. WHEELER: Would the lower venous

pressure help?

DR. DOCK: Keeping the venous pressure low is one of the things that leads to trouble. The caliber of the veins is very small. Clots begin to form and propagate, especially if the venous

caliber is small and constant. The reason people in wheel chairs do so well is because they do not compress the calves and constantly change the pressure points on the thighs and buttocks. They have distended veins in the legs, just as we all do part of each day. That is not such a serious business as having pressure on the muscles for long periods of time and a constant low venous pressure in the legs.

DR. WHEELER: Don't you think the velocity of the blood flow has something to do with it?

Dr. Dock: I think it is perfectly obvious that if you raise the velocity of flow in the legs to a maximal level every three or four hours, no large emboli could possibly come from the legs. You might get little thrombi, but when this tremendous flow comes along the little thrombi are washed loose.

The easiest way to increase the blood flow is to induce reactive hyperemia by obstructing the flow for five minutes every four hours. This would give twenty minutes of intense blood flow through all veins in the lower extremity. Reactive hyperemia would be more effective that passive exercise.

DR. WOLFF: Dr. Shorr, it is my understandin that men who are injured with gunshot wounds etc., who have broken bones and are put to be often get kidney stones because of the calcinumi that follows the bed rest.

DR. EPHRAIM SHORR: The increase in calciun excretion under these conditions is perfectly enormous and it cannot be influenced by diet Putting such patients on calcium-free diet results in no diminution whatsoever from a leve of 300 to 400 per cent of the basal calcium excretion. The factors which hold calcium in solution are not correspondingly altered.

Thus a very favorable situation exists for the production of renal stones. At the same time, as Dr. Dock pointed out, bed rest is an active mechanism for depriving the rest of the bony skeleton of calcium. It is encouraging that this is recognized, and in the Army, as well as in civilian life, most alert surgeons have the patient made ambulatory as fast as possible. Some of the British surgeons think this may be overdone, in that there is a tendency for the bones to separate and delay healing. Certainly the tendency in the past has been in the other direction; there has been insufficient awareness of the calcinuria, with loss of calcium from the skeleton. Sometimes this situation is unavoidable and measures have to be instituted to deal with it in cases in which prolonged bed rest is necessary.

I should like to comment on what one might learn from the natural phenomena of sleep as compared to what happens to a patient who has been given morphine after operation. Some

experiments on sleep were carried out at the Mellon Institute a number of years ago. results were startling. Thus, restful sleep occurred when the subject moved quite frequently during the night. The type of sleep in which, for some reason, such as experimental stupor or unusual fatigue, the subject hardly moved, was not usually followed by the sense of refreshment in the morning. The business of moving the legs about every seven minutes or so, as many of the normal subjects do, may not only relate to the maintenance of vascular flow but also to the carrying away of products, such as lactic acid, which might accumulate in muscle and which, if long continued, might lead to mild degenerative changes. I was very much impressed with these studies of the restfulness of restless sleep.

VISITOR: I should like to ask Dr. Dock a question. In Germany there was the belief that in the last two decades an actual increase occurred in the number of patients with pulmonary embolism found at autopsy as compared with the first decade of the century. I think that in the early nineteen-thirties it increased from about 1/2 to 1 per cent to about 5 per cent. Is there any explanation for that?

Dr. Dock: I don't know how much of that might be due to better nursing care. The German continental nursing care is not nearly so protective and maternal as in this country, and the number of patients who get complete bed rest was much smaller on the German wards than on ours. Perhaps they are catching up and keeping the patient in the cocoon-like stage. This increase might have been due to a change in diet or in sedation.

SAME VISITOR: Perhaps it had something to do with the increased use of intravenous medication?

Dr. Dock: That would only apply in the arms, and these things all come from the legs.

An interesting observation comes from Dr. Snapper of the Peking Medical School. Such accidents are practically unknown in their hospital. They have excellent nursing care, but pulmonary emboli and phlebitis are quite rare. They think it is a question of diet, perhaps something to do with the high intake of unsaturated fatty acids.

Dr. Wolff: There are certain difficulties in tabes. Patients with tabes are very seriously affected by being put to bed. A man having his eye treated, which is supposed to take two weeks, and who has trouble with his posterior column, may not be able to walk at all after that. Similarly, patients with multiple sclerosis who have trouble with their position sense may have a lot of trouble in walking after a few weeks in bed.

STUDENT: I should like to ask Dr. Dock if there is any relation between typhoid fever and the formation of thrombi?

Dr. Dock: There are two schools of thought on thrombi in typhoid. Dr. Connor felt that special care to the legs of the typhoid patient did not reduce the incidence, whereas Clifford Albutt in his final years said that when he was a young man he got the percentage down to 8 per cent by special attention, moving the legs, and special exercises.

Usually for a considerable part of the time the typhoid patient is in a prostrate stage, when getting up is more or less out of the question. The question is how to prevent embolic accidents.

Dr. Shorn: I think attention should be called to the work of Dr. DuBois with respect to the energy cost of sitting in a comfortable chair as against that of lying flat in bed. He found no significant difference. His results do not support the need for the flat position.

Dr. Gold: You may be interested to know that I looked through five well-known textbooks on therapeutics for discussions of bed rest and all that I could find was that it is quite essential in many conditions. The dangers were not mentioned.

DR. MUSCHENHEIM: There is just one comment that I should like to make. Dr. Dock implied that perhaps too much bed rest was given to the tuberculous patients throughout the country. Of course, the opinion of most of the tuberculosis workers is quite the opposite—that not nearly enough bed rest is given the tuberculous patients on the average. That is perhaps a separate subject from the hazards of bed rest, but certainly the opinion is growing that more strict bed rest is indicated, even for the early tuberculosis cases.

#### Summary

Dr. Gold: When a person is very ill he goes to bed. If he doesn't do so himself, the doctor orders him to bed. In the face of the fact that this practice is so universal and seems so natural its wisdom is rarely questioned. The development of the profession of nursing has helped to apply a new rule in the program of bed rest; namely, absolute quiet, and the widespread use of hypnotics and narcotics has gone a long way to enforce it. The patient lying flat in bed, guarded against his will to move, by nurse and drug, has become a familiar figure.

In the conference this afternoon he is described as a person treated by a method which endangers his life and which fails to offer sufficient compensation for the risk.

The discussions seem to have shaken the solid

foundations of bed rest as a therapeutic measure. It was pointed out that as a means of securing absolute rest lying in the bed is sometimes inferior to sitting quietly in a chair, for many patients are much more restless in bed than they are in a chair. The energy exchange of the patient while sitting in a chair is not materially higher than it is when he is lying in bed, as shown by the basal metabolic rate. Lying in bed, furthermore, involves unphysiologic postures and adjustments which give rise to many disturbances. It leads to constipation, distention, urinary retention, prostatism, impairment of appetite, bed sores, loss of muscle tone with wasting, cramps, persistent muscle spasm, and loss of calcium from the skeleton with calcinuria and renal stones. Not the least important of its unfavorable effects is the depression of morale. The bedpan is a source of discomfort and annoyance, and straining on the bedpan sometimes proves disastrous. The use of the commode often involves much less energy and less danger. Another serious consequence of lying flat in bed occurs in failure of the left side of the heart, in which the greater filling of the heart promotes edema of the lungs. In elderly persons especially, it leads to pulmonary congestion and hypostatic pneumonia. Protracted bed rest prolongs the period of convalescence and makes more difficult the final adjustment to an erect posture and a normal mode of life.

There is a more serious consequence of bed rest; namely, pulmonary embolism. This results from the compression of the veins in the calves of the legs, slowing the venous circulation, with resulting thrombosis. It is noteworthy that more than half of the adult patients who have been in bed two weeks or longer develop thrombi in the veins of the calf. A sudden movement which increases the venous pressure and the pulsation of the vein liberates a thrombus and results in pulmonary embolus which is sometimes

The autopsy material in this institution reveals that this factor arising from bed rest is a more frequent cause of death than many serious ailments and all the drugs combined.

There are, of course; many situations in which bed rest may be essential, such as pulmonary tuberculosis, acute prostration and shock, and after certain operative procedures. It is pointed out, however, that many conditions in which it is commonly regarded as essential may be more satisfactorily treated with the patient for the most part sitting in a comfortable chair. Special mention was made of the traditional confinement of the patient with coronary thrombosis for a period of six weeks in bed. There seems to be a great deal of doubt that this is necessary, as well as a belief that greater freedom of motion and sitting in a chair, except possibly for the most acute phase of the disorder, would materially improve the treatment of this condition.

What this conference has stressed is the fact that not sufficient thought is generally given to the bed system of securing rest, and if a decision concerning the use of bed rest will be based upon such considerations as have been discussed, an important advance in treatment is likely to fol-

More patients will be treated almost from the beginning of their illness to its end by comfortable rest in a chair rather than by debilitating rest in bed. The patient's preference and comfort will play an important part in the decision. Much more often will the commode take the place of the bedpan. Patients who need to be confined to bed will be encouraged to move with reasonable frequency in order to avoid the formation of thrombi in the veins of the legs. Less depressant medication will be used. The morbidity from protracted illness will be reduced. The convalescence from protracted illness will be shortened. The mortality from bed rest alone will be largely eliminated.

# A.M.A. COMMITTEE ACTS TO SOLVE PROBLEMS OF POSTWAR MEDICAL CARE

Three moves aimed at solving two of the most important problems in providing a better postwar distribution of medical care—a wider and more appropriate distribution of hospital and diagnostic facilities and an efficient means for providing for the location and relocation of physicians in the postwar period, have been made by the Committee on Postwar Medical Service of the American Medical Association, the Journal of the Association reports in its February 12 issue.

At a recent meeting of the Committee it was voted to recommend to the Board of Trustees of the Association that the Board look into the desirability of establishing an agency for disseminating information on the location or relocation of physicians in the postwar period.

The report points out that "Inasmuch as a wider and more appropriate distribution of hospital and diagnostic facilities would influence decisively a satisfactory location or relocation in the postwar period, the Subcommittee on Location and Relocation . . . . was authorized to explore the subject of hospital and diagnostic facilities and the extension thereof as an effective measure in the better distri-bution of medical care."

In its third move the Committee authorized the sending out of a sample, or pilot, questionnaire of 3,000 copies to physicians in the armed forces. The purpose of the pilot questionnaire is to determine the best form of inquiry as to the probable nature of postwar needs of large numbers of physicians in military and governmental service.

# Case Report

#### MEDIASTINAL LYMPHOSARCOMA

Report of a Case Under Roentgen Therapy for More Than Ten Years

E. B. BILCHICK, M.D., and A. W. JACOBS, M.D., New York City

T.P., AGED 39, married, a housewife, Italian by birth, was first seen by Dr. Bilchick in October, 1931, because of pain in the chest and cough, with some loss of weight, which had lasted one year. The patient had been married eleven years but had no children. Her menstrual history was regular. Her past history was irrelevant. Family history was not significant. Physical examination at this time revealed dullness in the right chest anteriorly and some dullness posteriorly in the upper half of the chest. Tests of the ears, nose, throat, and sinuses gave negative results. The tonsils were small and gave negative results. The tonsils were small were not infected. The larynx was normal. masses or signs of infection could be found in the neck or upper respiratory region. X-rays of the chest were advised but the patient refused to have them taken. A cough mixture was prescribed. The patient was not seen again until March 1, 1932, when she reported to Dr. Bilchick with a further history of loss of weight and a cough; in addition she had anorexia, some difficulty in swallowing, and swelling in the right side of the neck, which had been increasing in size for several months. Examination at this time showed the following:

Ears, nose, throat, tonsils, and sinuses were nega-

tive; the larynx was negative.

The general condition of the patient was good.
In both sides of the neck, extending from the supraclavicular region up to the ear on the right and to the middle of the cervical region on the left, were masses of glands which were very firm, not fluctuant or tender. The right upper field was flat to percussion anteriorly and posteriorly, with diminished breath sounds.

Blood examination showed a normal count, with no eosinophilia and very slight anemia. No abdominal masses were palpable, nor could the liver or spleen be felt, nor was there any general glandular

adenopathy.

Report on the roentgenograms of the chest was as follows: heart: normal; lungs—right, a large welldefined, rounded, homogeneous, dense shadow practically filled the upper two-thirds of the lung field. Its base appeared to be in the mediastinum. lower third of the lung field was clear; left-clear. There was a definite, lobulated shadow in the region of the lung root, which was of similar density and appeared to be continuous with the shadow in the right chest. This apparent continuity of the shadow was best seen in the upper portion of the chest. The tumor in this region appeared to encase the base of the heart. Costophrenic sinuses—clear; trachea—in midline. There was a slight but definite present of the level of the nite pressure defect on the right side at the level of the seventh cervical to the second dorsal spine; disphragm-smooth contour, good excursion; ribs-

Diagnosis: mediastinal neoplasm.

Biopsy of the cervical mass was advised, but the patient refused. The patient was referred to Dr.

Jacobs for radiation therapy on March 3, 1932. Physical findings were confirmed at this time. Deep roentgen therapy was administered to the anterior mediastinum and supraclavicular regions and posteriorly to the mediastinum. sisted of 1,200 r to each portal in divided doses of 200 r at each treatment from March 3, 1932, to April 9, 1932. This was followed by regression of the masses in the supraclavicular regions, gain in weight, improvement in general condition, and ab-

sence of symptoms.

On April 11, 1933, about one year later, the patient appeared for examination. She had gained in weight, but complained of some pain in the anterior chest and a slight cough. Examination revealed moderate swelling in the right supraclavicular region and numerous palpable glands in both supraclavicular regions, more on the right side. Roentgen therapy to the right supraclavicular region, anterior mediastinum, and posterior mediastinum, consisting of 1,200 r to each was resumed in divided doses, from April 11, 1933, to May 26, 1933, after which there was complete regression of the swellings and glands. During the latter part of 1934 and the early part of 1935, 1,200 r were again administered to the anterior and posterior mediastinum. During the early months of 1937, 800 r were given to the anterior mediastinum and 1,200 r again during the latter part of 1937. In April, 1939, the patient complained of cough with mucoid expectoration, pains in the chest, anorexia, loss of 15 pounds in weight in three months, and choking sensations, with some dyspnea on exertion. During the latter part of 1939, roentgen therapy was given to the anterior chest consisting of 1,600 r. On March 27, 1941, the patient complained of pains in the anterior part of chest, cough with expectoration which was bloodtinged at times, and dyspnea on exertion. Over a period of six weeks 1,200 r were given to the anterior chest. This was repeated about three months later.

Throughout this time, physical examination was checked by both the authors. No findings outside of the chest were observed. The patient, in spite of her complaints, looked well and was able to do her housework and even to help her husband in a small shop. However, on January 9, 1942, she complained of sudden attacks of marked dyspnea, weak spells, and fear of serious consequences. These occurred at intervals of one to two weeks. It was felt that the symptoms were due to pressure on the trachea and vagus nerves and branches. In February, 1942, hospitalization was advised to permit observation and any emergency surgical procedure that might

be necessary.

The patient was admitted to Morrisania Hospital on February 5, 1942. Her age was now 52. Examination at this time showed no findings except for the chest condition. Her blood count was normal. Fluoroscopic examination and x-rays with barium in the esophagus showed the esophagus to be nor-



Fig. 1. Before treatment—March 1, 1932



Fig. 3. Five years and eight months after treatment.

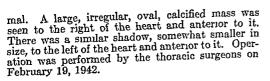


Fig. 2. Six weeks after treatment



Fig. 4. Nine and one-half years after treatment

A transverse incision was made over the right second space. The second and third costal cartilages were cut and the internal mammary artery was ligated. The intercostal muscle and pleura were cut and the chest was opened. A large, lobulated, stony, hard mass was found behind the heart and

great vessels and in front of the esophagus. This was densely adherent and resisted dissection. At one point when the mass had been almost completely freed, sudden sharp bleeding occurred from a vessel above the mass. This was clamped and because of the patient's condition the operation was discontinued. The wound was closed with chromic sutures

Unfortunately, the patient expired five minutes after return from the operating room. No autopsy

was performed.

#### Summary

In conclusion, the case reported presents the following interesting observations:

1. The value of the roentgen therapeutic test in the differential diagnosis of mediastinal neoplasms is demonstrated.

Roentgen therapy properly and judiciously administered is of considerable value in the alleviation of symptoms and prolongation of life in comfort.

In the performance of surgical procedures in the therapy of malignant tumors it is of the utmost importance to use proper surgical judgment before decision upon radical or palliative measures.

4. The clinical course and marked regression of the neoplasm under roentgen therapy in this patient, though no biopsy was done, is strongly indicative of a malignant lymphosarcoma.

Dr. E. B. Bilchick 876 Park Avenue New York City

Dr. A. W. Jacobs 295 Central Park West New York City

### Correspondence

[Continued from page 712]

cavity, unassociated with the intestinal tract, so that it seems that the granulomatous lesion is rather widespread in the body and of a diverse protein character. In any case, in the gastrointestinal tract the characteristic part of the lesion consists in a spread of a surface lesion to an intramural position in the wall of the alimentary canal. Essentially the lesion seems to be a form of chronic infection of the lymphatic apparatus of the deeper layers of the bowel wall which implicates the solitary and aggregated collections of lymphadenoid follicles, the lymphatic channels, and the associated lymph nodes in the appropriate part of the mesentery. During the development of the lesion, the original agent of infection commonly disappears and secondary infection takes place. Intramural abscesses form. During the healing or attempted healing of the latter, cicatrization is accompanied by the excessive production of scar tissue, and the latter causes a hypertrophic thickening of the bowel wall with subsequent stenoses.

The nonspecific granulomatous lesion represents the end result of a diversely initiated lesion of bowel infection marked by intramural infection and subsequent evidences of an attempted overproductive

but unsuccessful healing.

These forms of lymphatic infection in the bowel either localize themselves to a restricted part of the bowel wall or they involve extensive segments. relative frequency with which this pathology affects the terminal ileum is due directly to the relative frequency with which this disease begins in the appendix, its most frequent localization. Both the localized and the diffuse forms exhibit the tendency to exacerbations of infection during which there is the same possibility of spreading of the lesion along further lymphatic channels.

It is my opinion that should the localized forms of the disease not become and remain symptomlessand such spontaneous remission periods of the disease are, in my experience, uncommon and do not necessarily correspond with any healing of the

lesion-medical or other forms of conservative treatment are not effective. Then one should remove the involved part of the alimentary canal with a radicality equal to and similar to that in use for a malignant lesion, so that one goes thoroughly beyond the diseased area in order to prevent any subsequent contiguous spread of the disease.

It is different with the forms in which a very extensive part of the intestine is involved. It is manifestly not very judicious to remove any extraordinary length of the small intestine, so that, perforce, we are compelled to treat these bad cases medically and conservatively. This is not the method of choice but of expediency. And these patients become chronic invalids and never attain any kind of cure which is at all comparable with that in the localized form.

The cases in which a number of areas in the same intestine are said to be "independent" localizations of this disease, undoubtedly result in its extensive forms in which healing takes place in certain rela-tively mildly involved areas, and in which other more severely diseased and damaged areas are not able to undergo healing. These cases lie in between the strictly localized and the extensive forms of the disease; and, perhaps, only in this type of case are short circuiting operations indicated again not as a method of choice, but as a method of expediency.

I do not agree that resection is rarely indicated. I believe that resection is commonly indicated and should always be done whenever it is technically possible to do so after a course of medical treatment has proved the ineffectiveness of the latter. Good permanent cures will be obtained when the resection is a sufficiently wide one. In the other cases, the treatment, whether short-circuiting or conservative medical, is just the best one can do at the present writing in the face of conditions beyond our effective surgical reach.

> Very truly yours, A. O. WILENSKY, M.D.

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Thurber LeWin, Erie Credentials Lyman C. Lewis, Allegany Peter Irving, Chairman, New York Charles F. McCarty, Kings Edward C. Podvin, Bronx John A. Pritchard, St. Lawrence Roy E. Wallace, Seneca Council-Part VI PUBLIC RELATIONS AND ECONOMICS David W. Beard, Chairman, Schoharie William Klein, Bronx Maurice C. O'Shea, New York Guy S. Philbrick, Niagara Bernard S. Strait, Yates President W. Guernsey Frey, Jr., Chairman, Queens Horace E. Ayers, New York Charles A. Prudhon, Jefferson Robert C. Simpson, Montgomery Council-Part VII NONPROFIT MEDICAL EXPENSE INSURANCE Albert A. Gartner, Chairman, Erie Samuel E. Appel, Dutchess Benjamin M. Bernstein, Kings John E. Wattenberg, Cortland Secretary, Treasurer, Censors, and District Branches Edward P. Flood, Chairman, Bronx Roy B. Henline, New York William G. Cooper, St. Lawrence Reginald A. Higgons, Westchester Oswald J. McKendree, Oneida Council-Part VIII Madge C. L. McGuinness, New York Theodore W. Neumann, Orange LEGISLATION Walter P. Anderton, Chairman, New York Trustees Eugene H. Coon, Nassau Peter J. Di Natale, Chairman, Genesee Abraham Koplowitz, Kings Charles A. Anderson, Kings James S. Lyons, Albany Archibald K. Benedict, Chenango Alfred H. Noehren, Erie Ada C. Reid, New York Joseph C. O'Gorman, Érie Council—Part IX WORKMEN'S COMPENSATION Planning Committee for Medical Policies Leo F. Simpson, Chairman, Monroe John J. Masterson, Chairman, Kings Stanley E. Alderson, Albany John J. Gainey, Kings Nathan Ratnoff, New York Conrad Berens, New York Harry S. Bull, Cayuga Stephen R. Monteith, Rockland Nelson W. Strohm, Erie Warren Wooden, Monroe Council-Part X MEDICAL LICENSURE Maurice J. Dattelbaum, Chairman, Kings Constitution and Bylaws Amendments Frederic W. Holcomb, Chairman, Ulster Milton S. Lloyd, Richmond Henry W. Miller, Putnam Fenwick Beekman, New York Edgar O. Boggs, Lewis Walter T. Heldmann, Richmond Arthur F. Heyl, Westchester John L. Sengstack, Suffolk Albert G. Swift, Onondaga Council-Part 1 Council-Part XI POSTGRADUATE EDUCATION MALPRACTICE DEFENSE AND INSURANCE Albert F. R. Andresen, Chairman, Kings LEGAL COUNSEL Moses H. Krakow, Chairman, Bronx Emil Koffler, Bronx Leon M. Kysor, Steuben Beverly C. Smith, New York Charles C. Trembley, Franklin John Dugan, Orleans John L. Edwards, Columbia B. Wallace Hamilton, New York Council-Part II H. P. Mencken, Queens MATERNAL AND CHILD WELFARE Council-Part XII John T. Donovan, Chairman, Erie WAR PARTICIPATION AND GENERAL MATTERS Joseph A. Geis, Essex Harvey B. Matthews, Kings Louis A. Van Kleeck, Nassau Dan Mellen, Chairman, Oneida Stephen H. Curtis, Rensselaer Burdge P. MacLean (Scientific Section Delegate) William C. Meagher, Kings Denver M. Vickers, Washington Council-Part III Jacob Werne, Queens SCHOOL HEALTH Leo F. Schiff, Chairman, Clinton New Business A John D. Carroll, Chairman, Rensselaer Louis A. Friedman, Bronx Arthur S. Broga, Madison Alfred M. Hellman, New York Ralph I. Lloyd, Kings Ralph Sheldon, Wayne Thomas M. D'Angelo, Queens Henry S. Martin, Wyoming Donald E. McKenna, Kings Council-Part IV New Business B PUBLIC HEALTH ACTIVITIES
G. Scott Towne, Chairman, Saratoga
Albert A. Cinelli, New York
Edwin A. Griffin, Kings
Walter G. Hayward, Chautauqua
Harry I. Johnston, Broome Andrew A. Eggston, Chairman, Westchester Joseph H. Cornell, Schenectady Charles S. Lakeman, Monroe Morris Maslon, Warren Thomas B. Wood, Kings New Business C J. Stanley Kenney, Chairman, New York Kenneth F. Bott, Greene Council-Part V PUBLICATIONS AND MEDICAL PUBLICITY William B. Rawls, Chairman, New York Irwin E. Siris, Kings Scott L. Smith, Dutchess J. Lewis Amster, Bronx

William W. Street, Onondaga

Joseph P. Henry, Monroe

# Annual Reports

# Medical Society of the State of New York 1942-1943

# Report of the President

To the House of Delegates; Gentlemen:

It is with feelings of appreciation and thankfulness that this report is presented. From the Presidency, the work of the members of the State Society can be viewed only with deep regard. The work of our men in the armed forces, who have relinquished all their professional home ties and interests, who, at the call of their country, have left their families and their homes to protect the health and heal the wounds of our soldiers and sailors, continues to receive special praise from their Commanding Officer. They have brought to us all increased pride in them, and to our profession, honor. More than 10,000 of our doctors from New York State are in the Navy and Army forces Although the need is less pressing this year for the services under the Selective Service Act and in Civilian Defense, our doctors at home continue to meet the demands made on them and to remain trained and ready at all times for the emergencies of civilian life. Governor Dewey, in his address to the Legislature, mentioned with commendation the cooperation of the State and the medical profession in war partici-pation and preinduction work, as well as in all the health programs.

The duties of caring for the health of the people, with the reduced number of doctors, with full demand on hospitals with much depleted staffs, have been onerous burdens well and faithfully discharged. While some services in hospitals necessarily have been curtailed, none essential in the care of the

sick has been neglected.

It is particularly pleasing to recognize in such troublesome and burdensome times the work and sacrifice of so many doctors for the objects of this State Society The science of medicine has been advanced, as the programs and attendance at the meetings of our county societies and district branches attest.

Despite special difficulties, the postgraduate work arranged by the Council Committee on Public Health and Education has been appropriate to the times and to our present degree of knowledge of medical science. This postgraduate work with its staff of distinguished teachers, in the variety and usefulness of the subjects presented and its availability to the convenience of attending doctors, is an achievement of real merit and benefit; it must be continued. The rapid diffusion of knowledge acquired from the war and the new technics gained by many men make these postgraduate courses imperative.

The Public Health and Education Committee through its subcommittees conducts many activities well, as the accompanying separate reports show. Some of these deserve special attention because of the importance of the objects, and the amount of time and labor so freely given: maternal and child welfare (including the Federal Emergency Maternity and Infant Care Program in New York State), development of a school health teaching program, tuberculosis and chest diseases, dental health, problems of the hard of hearing and the deaf, industrial health, and blood and plasma exchange

The Chairman of the Council Committee on Public Health and Education, through the Subcommittees on Maternal Welfare and Child Welfare and assisted by your officers, devoted long hours to the E.M.I.C. (Federal Emergency Maternity and Infant Care) Program. Real cooperation and assistance were received from the New York State Commissioner of Health and from the New York City Commissioner of Health. The orders came from Washington, to be administered by the State Health Department. All plans for administration have to be accepted by the Children's Bureau of the United States Department of Labor in Washington before any funds will be allotted to the states. With the object of the Act, to provide maternity and infant care for the wives and babies of members of our armed forces in the four lower grades, let me express our complete accord. With such details as the interposition of a third party—the government—between the patient and her physician, the fixing of fees by Washington for all the states, fees for confinement and for infant care, the regulation of the number of visits and amount of treatment permitted for infants, the danger of the temporary Emergency Act becoming a permanent fixture, we are in complete disagreement.

Much attention has been given to the Commission appointed under the Moreland Act to investigate the administration of the Workmen's Compensation Act. The administration of this law, in its medical provisions, has, under ruling of the Industrial Commissioner, been conducted by the special committees of the county societies. The State Committee and its Director of the Workmen's Compensation Bureau have acted in a supervisory and advisory position. The quality of medical service to the injured has been good—vastly improved over treatment prevailing before the past eight years.

There have been some abuses revealed by the Commission, which have arisen because lawful

authority to remedy them has been withheld until the past few months. The county societies have had responsibility without authority. It may be unnecessary to add that every dereliction of duty on the part of any doctor will be tried by his County Committee and, if warranted, proper punishment will be recommended to the Industrial Commission. Several hundreds of these cases have up to this time received this action. The Moreland Commission has finished its work, and we are daily awaiting its report at this date (March 1) to the Governor of the State.

The Committee on Medical Licensure has completed its work to date and presented a splendid, informative, constructive report, with recommendations, all of which were approved by the Council. Although many conferences with representatives and members of the Board of Regents of the University of the State were held, much that was desired was not attained. Despite the friendliness to our purpose of the Board of Regents, some of the laws of the State and rulings of the Supreme Court are in opposi-

tion to suggested changes.

The details dictated by a central bureau in Washington on the E.M.I.C. Program to all the participating states afford an example of the control that would be exercir. d by a central Washington bureau (in National Compulsory Sickness Acts—such as the Wagner bill) on all parts of the practice of medicine. There would be third party interference and intrusion between doctor and patient, there would be standardization, supervision, and control of all hospitals and all medical education; and in that control below the Administrator but including the Advisory Board there is no mandatory place of any authority for a physician. The lay clerks in the local Social Security office of an area would be in charge. The Wagner-Murray-Dingell bill has been presented for discussion before nearly all of our county societies, and the medical provisions have been condemned by our Council by unanimous vote.

For these and other reasons, we are more and more driven, through the introduction of such bills, to realize the possibilities and advantages of the prepayment plans of this State. To the oft-repeated question of the proponents of government compulsory insurance as to what other choice exists, here is one answer. Although there are in thirteen states over a million members of prepayment plans, the number is not large enough. Lack of knowledge of the beneficial possibilities seems to be the retarding influence. The Subcommittee on Medical Expense Insurance, through its Chairman, President-Elect Bauckus, has worked faithfully all the year. Its activities have been presented to and considered by the Council at all its sessions, and it is an earnest hope that all our members will take deep interest.

Acknowledgment with commendation should be made for the work of those responsible for the production of the Journal. Dr. Laurance D. Redway as Literary Editor, Dr. Peter Irving as Managing Editor, and Mr. Dwight Anderson as Business Manager of the Journal. This work has been greatly aided by the Publication Committee. Also, the general office and the business office of the Journal have been able with the advice of the Committee on Office Administration and Policies to fit their different duties together most smoothly.

I could dwell deservedly at great length on the work of all the Committees, and on the work of your Council. To all these members who have come to meetings from all parts of the State, who have sacrificed time and work and comfort to bring their knowledge and experience to the success of the Society in accomplishing their purposes of increasing medical science and making it more widely available to the sick; to them I give an expression of my appreciation, my gratitude, and my confident reliance.

THOMAS A. McGoldrick, M.D., President
March 1, 1944

# Report of the Secretary

To the House of Delegates; Gentlemen:

Since your last meeting on May 3 and 4, 1943, the administrative year has seen a full call for accomplishment of regular activities with special stress on certain factors. The headquarters office has been able to meet all demands, general and special Coordination of all activities has been effected.

Membership.—Elected in 1943 were 710 new members; 177 were reinstated. The net increase for the year, as shown below, was 339.

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Membership—December 31,		
	18,313	
New members—1943.		
Rosented Members 1943	710	
tateu mempers1943	177	19,200
Deaths	244	,
Deaths Resignations. Licenses suspended		
	130	
Licenses suspended.	8	
Licenses revoked	8 5	387
Dramas		18,813
. Supped for nonpayment of		
Drapped for nonpayment of dues—December 31, 1943		161
Total Mambaratin D. 1		122
Total Membership, December		
31, 1943		18,652

Honor counties (none of whose members failed of their dues in 1943) include Broome, Cattaraugus, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Greene, Herkimer, Jefferson, Ontario, Orleans, Putnam, Rockland, Schoharie, Schuyler, Seneca, Tompkins, Wayne, Wyoming, and Yates.

Comparative totals of membership since 1935 follow:

193514,064	194017,409
193614,662	194117,781
193715,529	194218,313
193816,177	194318,652
193916,785	

New York Office.—The office work of the Society has been carried on this year without increase of the general staff and with a number of changes of personnel. One worker joined the "W.A.S.P.S.," and one (from the Bureau of Public Relations) joined the U.S. Marine Corps, Women's Reserve.

The Joyneya staff between her beginning the corps.

The Journal staff, however, has been increased by three employees owing to the necessity to take into the office the task of securing advertising for the Journal. This work had previously been done by

contract with an outside agency run by Mr. Kent Lighty. Mr. Lighty had died early in 1943, and, finally, on May 1, 1943, arrangements were com-pleted to employ two salesmen and a secretary as part of the Journal staff working under Mr. Anderson as Business Manager of the Journal. Experience with this change has proved most satis-

The nonpublication of the Directory has made it unnecessary to employ transient workers for com-

pilation.

The usual increase of work in securing professional data about physicians registered in New York State has been met. In addition, there has been the task of keeping up—as well as possible—the file of New York doctors in service (from which the Honor Roll of members published in the JOURNAL is prepared).

Work of the War Participation Committee has continued in varying degree, mainly in assisting the Army to get physicians in the twelve different groups for work on the Pre-Induction Boards. The major work in this field has, of course, fallen on the county societies in the seven different areas of the

State, but has flowed through this office. It has been very helpful to have in operation

during the year the Special Committee on Office Administration and Policies, particularly under present wartime conditions.

Coordination of Activities.—The past administrative year has been one of continuing active work by Council, Council Committees, and Subcom-

Several new committees were added following your last meeting:

A Subcommittee on Blood and Plasma Exchange Banks has worked under the Council Committee on Public Health and Education, with Dr. George M. Mackenzie, of Cooperstown, as Chairman.

Two subcommittees were appointed to work with the Council Committee on Legislation: Subcommittee on Chiropractic, Dr. Ralph T. Todd, of Tarrytown, Chairman; Subcommittee on Basic Science Law, Dr. Leo F. Simpson, of

Rochester, Chairman.

Following the creation of the new A.M.A. Council on Medical Service and Public Relations. of which Dr. Louis H. Bauer is Chairman, there was created a Council Committee on Medical Service and Public Relations, to cooperate with the new Council, with the following membership: Dr. John L. Bauer, Brooklyn, Chairman; Dr. Walter W. Mott, White Plains; Dr. Leo F. Walter W. Mott, White Plains; Dr. Leo F. Simpson, Rochester; Dr. Herbert H. Bauckus, Buffalo; Dr. Joseph S. Lawrence, Albany, ex Buffalo; Dr. Joseph S. Lawrence, Albany, ex officio; Dr. Peter Irving, New York, ex officio. Under date of December 4, 1943, a memorandum was sent to all county societies, urging them likewise to appoint committees to cooperate. through the State Society Committee, with this A.M.A. Council.

Finally, the new Special Committee of the Medical Society of the State of New York has been hard at work through the year, the 'Planning Committee for Medical Policies," with the following membership: Dr. Louis H. Bauer, Hemp-stead, Chairman; Drs. Thomas A. McGoldrick

Brooklyn; Herbert H. Bauckus, Buffalo; Peter Brooklyn; Herbert H. Daucaus, Juniffe, Bronx; Irving, New York; Edward R. Cunniffe, Bronx; Walter W. George W. Cottis, Jamestown; Walter W. Mott, White Plains; J. Stanley Kenney, New York; Leo F. Simpson, Rochester; Herman G. Weiskotten, Syracuse; Norman S. Moore, Ithaca.

The emphasis during the year has lain on problems in public health from various angles. Postgraduate education has been steadily stepped up. Many conferences with the State Department of Health have brought useful aid from that Department. Development of the Child Health Program has been pushed in conjunction with the Department of Education. The truly remarkable values of newer-day use of blood and plasma and the establishment of exchange banks have been well worth the work of a new subcommittee. The Emergency Maternity and Infant Care Program has demanded continued discussions in the effort to help in the best ways to provide care for wives and children of men in service. Promotion of nonprofit medical expense insurance has received much committee attention and conferences have been held with others concerned.

The experience of having a fall meeting of the County Legislative Chairmen on the same day as the County Secretaries was, in the opinion of your Secretary, well worth while. He recommends that

this become a regular custom.

Your Secretary felt honored to receive a request from Governor Dewey to serve on a Commission to Investigate the Department of Mental Hygiene. . This, with the approval of the Council, was accepted. This Commission asked and received from President McGoldrick nominations for an Advisory Committee of physicians to confer with it in the course of its study of existing conditions and in working out constructive recommendations for improvement. The report will have been issued before your meet-

It has been a year of important work in which your Secretary has felt it a privilege to help all concerned to realize the objectives of the organization, "... to extend medical knowledge and advance medical science; to elevate the standard of medical education; to secure the enactment and enforcement of just medical and public health laws; to promote friendly intercourse among physicians; to safeguard the professional and economic integrity of its members and to establish and maintain them in appropriate and equitable relationship with the public, with government, and with all agencies working in the fields of health and welfare; and to enlighten and direct public opinion in regard to the problems of medicine and health for the best interests of the people of the State." [Excerpt from Article 1, Constitution of the Medical Society of New York.]

It is with deep sorrow that your Secretary reports the death on February 18, 1944, of Miss Lily D. Baldwin, office manager emeritus, who had worked thirty-seven years for the Society before her retirement in 1927.

ment in 1937. In closing, I wish to record my gratitude to the office force for their loyal and devoted work under the excellent supervision of Miss Dougherty.

Respectfully submitted, PETER IRVING, M.D., Secretary

March 15, 1944

# Report of the Treasurer

To the House of Delegates; Gentlemen:

The financial status of the Society is shown on the following pages by excerpts from the annual report of the auditors, Messrs. J. K. Lasser & Co., for the

year 1943.

During the year there has been an increase in our surplus balance of \$43,477, of which \$27,882 represents appreciation in the market value of our securities. Remission of dues for members in the armed forces amounted to \$43,420, but there has been some gain in membership partially to offset this. increase in surplus is quite remarkable, and it is in spite of the payment of \$13,200 to the Lighty estate. It is due also to a net income of \$6,419 from securities (interest and dividends of \$12,026 less loss on sales of securities amounting to \$5,607) and to an excess of operating income over expenses of \$22,400. This last credit of net operating income is in the main the result of three factors: the Journal, which turned back to the Society about \$6,000 net, instead of being a debit item as in former years; the fact that the Directory could not be published; and careful management of the financial affairs of the Society. Among the operating expenses only one item has materially increased—namely, traveling expenses. And here the increase was in the Annual Conference of Legislative Chairmen (two conferences in 1943), the A.M.A. Delegates (Chicago), the Planning Committee for Medical Policies, and the Emergency Maternal and Infant Care. These last two are new

There are two points of special interest in the auditor's report. This year there is an item in the Journal operations for membership dues allocated to circulation income. This sum of \$17,603 is more than a mere bookkeeping entry, even though it is balanced and more than balanced by the net income from the Journal, of \$23,598.58, on the operating sheet. It is an actual allocation of one dollar from the State assessment of each paying member for his subscription to the Journal. This must be done in order to comply with the postal regulations

governing second class mail matter.

The other point of special interest is one that has already been mentioned. In the audit it is called 'Payment to terminate Kent Lighty agreement," but that term does not tell the whole story. agreement, or, rather, contract, with Mr. Lighty was terminated automatically on his death early in 1943; the payment referred to was in settlement of claims on the Society by his estate for advertising commissions still to come due. Mr. Lighty was an agent. He received a commission on the advertising he obtained, payable to him when the advertisers had paid us. We billed the advertiser shortly after his advertisement was published. If his advertisement appeared in the JOURNAL each month he was billed each month, and Mr. Lighty received his commission when this bill was paid. On his death there were contracts, which he had obtained, for publication in the future, running perhaps for one or two years. It was the commissions on this advertising, contracted for but still to be printed, which were the basis of the claim of the Lighty estate. A settlement of this claim was advised by our counsel; an agreement as to the amount was reached by our counsel and the counsel for the estate, and the surrogate gave his approval (this was necessary, as there was an infant child involved). The payment of this amount was voted by the Publication Committee and was approved by a vote of the Board of Trustees. The Trustees also ordered that this sum be charged to the General Funds of the Society and not to the Journal account.

The present advertising setup is quite different. In the spring of 1943, after the death of Mr. Lighty, it was decided by the Council and the Board of Trustees, after study and recommendation by the Publication Committee, not to employ an agency again but to take charge of the work in our own office. So, beginning in May, 1943, two advertising salesmen were employed. They were given salaries, payable monthly; and they were each given a quota of advertising space which they are expected to fill. These quotas are not based on contracts for future publishing, but on the actual amount printed in the JOURNAL that month. If the amount printed is above the quota, they are given a certain percentage as a bonus; if the amount is below the quota, they are penalized by the same percentage. Thus the incentive type of salary is retained, but we are on a pay-as-you-go basis. If one or both of the salesmen should leave us for any reason, there will be no future payments due them, no commissions on future publishings. This is felt by us to be a much more satisfactory arrangement.

In closing I wish to thank the members of the office staff who have the care of the financial details of the Society for their devotion to their duties and for the cheerfulness with which they have helped the Treasurer in his work.

Respectfully submitted, Kirby Dwight, M.D., Treasurer

March 7, 1944

#### Auditors' Statement

We have completed an examination of the balance sheet of the Medical Society of the State of New York as of December 31, 1943, and the statements of income and capital for the year ended with that date, and have reviewed the system of internal control and the accounting procedures of the Society and without making a detailed audit of transactions have examined or tested accounting records of the Society and other supporting evidence by methods and to the extent we deemed appropriate.

In our opinion, the accompanying balance sheet and related statements of income and capital present fairly the position of the Society at December 31, 1943, and the results of its operations for the year

ended that date.

Respectfully submitted, J. K. Lasser & Co., Accountants & Auditors

February 15, 1944



			~====
GENERAL FUND			
CURRENT ASSETS			
Cash in banks and on hand	•	1,794.2 2.4	20
Less: Reserve for Doubtful Accounts		1,796.6 228.6	
Dues Receivable (1943) Less Reserve	\$	6,280.0 2,350.0	
Securities— At Market Value (Cost \$316,864.40) Accrued Interest Receivable.	<b>\$</b> 3	08, <i>558</i> .7 7,838.6	1 2 316,397.33
Inventory of Paper Stock—at cost			. 2,439.79
			\$466,176.21
OTHER ASSETS 1941-1942 Medical Directories, 205 on hand	Ş	385.4 71.0	
FURNITURE AND FIXTURES—at Nominal Value			2.00
ENDOWMENT FUNDS			\$466,634.61
Cash in Bank			\$ 4,454.80
Securities	• • • •		, 🗸 –, – – – – – – – – – – – – – – – – – –
At Market Value (Cost \$5,808.75)	\$	5,152.51 27.09	5,179.60
,			\$ 9,634.40
TOTAL ASSETS		• • • • • • •	\$476,269.01
GENERAL FUND			
Current Liabilities			
Accounts Payable	\$	220.90 288.83	
Bonus Payable on Advertising Sales		607.88 820.40	
Federal Income Tax Withheld from Employees.		2,514.21	\$ 4,452.22
	\$ 1	,581.62	
Prepaid Advertising	2	920.00	
Prepaid 1944 Membership Dues	- 8	,115.25	12,626.87
Reserves		100.00	
For refunds to Members entering the Armed Forces, etc	1,	,132.60 ,250.00	6,382.60
Capital—(page 742)			443,172.92
Chillia (page 1-2)		=	\$466,634.61
ENDOWMENT FUNDS		_	
Carrynay			2 4 177 97
Lucien Howe Prize Fund.  Merritt H. Cash Prize Fund.  A. Walter Suiter Lectureship Fund.			\$ 4,177.87 1,862.71 3,593.82
A. Walter Suiter Lectureship rund		_	\$ 9,634.40
•		=	3476,269.01
TOTAL LIABILITIES AND CAPITAL		····· _}	7410,203,01

CHECKING ACCOUNTS

SAVINGS ACCOUNTS

SECURITIES

OPERATING INCOME

OPERATING EXPENSES

Legislative...

The Chase National Bank ....

Various Savings Banks.....

PETTY CASH FUNDS-OFFICE.....

Total....

.Total....

Bonds and Mortgages..... Stocks....

Members' Dues-Year 1943.....

by the Board of Trustees....

Arrears....

Remitted and written off (1942) .

Net Operating Income from JOURNAL . Plus allocation of dues.....

Proceeds from When Doctors Are Rationed

Public Relations....

Administrative, including War Participation

Net co-t of 1941-1942 Directories distributed Counsel Retainer Fees and Expenses...

Traveling Expenses.
Planning Committee for Medical Policies

Emergency Maternal and Infant Care... Workmen's Compensation Bureau...

Less Reserve.....

Less allocation to Journal Circulation Income, as authorized

Scientific Activities.
Pension to retired office manager.

penses, etc....

Excess of Operating Income over Operating Expenses.....

District Branches—annual meetings, executive committees' ev-

Lucien Howe Prize Fund..... 

The investments of the Society (General Fund) may be summarized as follows:

December 31, 1943	\J)
	Regular Funds

PRIZE FUNDS

All of these securities are in the possession of the Chase National Bank as Custodian for the Trustees of the Medical Society of the State of New York.

CONDENSED STATEMENT OF OPERATING INCOME AND EXPENSES FOR THE YEAR ENDED DECEMBER 31, 1943

Investment

Funds

\$3,587.89

\$8,587,89

\$ 233,19

.....\$ 4.454.80

\$190,510.20 126,354.20

\$115,135.00

\$ 39,167.30

14,340.36

15,824.34

8,552.76 495.50

10,044.40 3,000,00

2.032.93

604.96 12,257.50

> 712.01 9,308.44

23,598.58

17.00 \$138,750.58

116,340.50

\$ 22,410.08

......\$316,864.40

\$ 97,660,90

\$103,053,81

\$ 29,607.54

\$133,020.01

\$137,210.00

3,600.00 \$133,610.00

17,603.00 \$116,007.00

1,288.00 \$117,295.00

2,160.00

\$ 5,995.58 17,603.00

358.66

4,971.84 421.07 Total

\$ 97,660,90

\$111,641,70

\$ 29,840.73

On Deposit Union Dime

At Cost

Savings Bank

\$8.821.03 \$141.841.09

358.66

759,99 1,995,49

4,971.84

9,008.96

# ANALYSIS OF FINANCIAL INCOME, EXPENSE, AND CAPITAL FOR THE YEAR ENDED DECEMBER 31, 1943

January 1, 1943, Balance	General Fund \$399,695.06	Lucien Howe Prize Fund \$3,841.93	Merritt H. Cash Prize Fund \$1,770.67	A. W. Suiter Lecture- ship Fund \$2,619.03
Additions— Excess of Operating Income over Operating Expenses Interest on Bank Balances Income from Securities. Contributions received Appreciation in Market Value of Securities Owned	22,410.08 491.46 12,026.89 27,882.52 \$462,506.01	26.56 102.50 206.88 \$4,177.87	35.00 44.38	$100.00 \\ 622.70$
Deductions— Loss on Sales of Securities	\$ 5,607.74 525.35 13,200.00 \$ 19,333.09			
December 31, 1943, Balance	\$443,172.92 ======	\$4,177.87	\$1,862.71	\$3,593.8 <b>2</b>

# Report of the Board of Trustees

To the House of Delegates; Gentlemen:

Future social problems, international money values, the possibility of advancing inflation, the present war expenditures, and all the complexities of taxation that may affect the national income have given the Trustees concern this year in the management of the investments of the Society.

ment of the investments of the Society.

Consideration has been given at every meeting of the Board to the financial information and advice received from The Chase National Bank. The decisions of the Trustees appear in the Report of the Treasurer and in the report of the auditors. It

would serve no useful purpose to repeat them.

The Trustees call attention to the fact that the publication of the JOURNAL is now a financial asset. Details of this are in the treasurer's report, the auditors' report, and in the report of the Publication

Committee. There is an appreciation in the value of the investment fund as a whole though some items are still below the original cost. The financial state of the Society is sound, owing to appreciation in the value of the investment fund; the financial asset of the Journal this year (for the first time); the income from investments, \$12,000; omission of publishing a Directory, saving thereby \$22,000 (the net cost); and conservative administration of the income of the Society. The income of the Society is reduced by \$43,000 because of remission of dues of members in the armed forces. Six hundred new members have made up some of this loss, so that the actual loss this year is only \$37,000. The financial soundness of the Society is largely due to

the careful management of the financial affairs of the Society by the treasurer. It has been accomplished without curtailing essential activities.

The only recommendation of the Trustees this year is that thought should be given to placing the Society's investments in the hands of a trust company. This would relieve the Trustees from functioning in a field for which they are not well trained. There are trust companies of one hundred or more years of experience, with records of safety of principal while producing desirable income. Decisions would be easier for the Trustees and their responsibility less. The Board recommends that a study of this be made during the coming year. There are excellent studies of economics going on in many places. The Society should look upon the income of its investments for use and its investment fund to keep as a producing source of income to use as needed.

A supplementary report of the Board of Trustees will appear in the next issue of the JOURNAL.

Respectfully submitted,
THOMAS M. BRENNAN, M.D.
GEORGE W. KOSMAK, M.D.
JAMES F. ROONEY, M.D.
EDWARD R. CUNNIFFE, M.D.
WILLIAM H. ROSS, M.D., Chairman
EX-Officio Members
THOMAS A. McGoldrick, M.D., President
KIRBY DWIGHT, M.D., Treasurer
PETER IRVING, M.D., Secretary

March 13, 1944

# Report of the Council

To the House of Delegates; Gentlemen:

Your Council has the honor to report on its executive and administrative management of the affairs of the Society in the period following your last meeting on May 3-6, 1943. The various matters that came before it, actions thereon, and recommendations are here presented in successive "Parts" of this report.

#### PART I

#### Postgraduate Education

#### REPORT

The Council Committee on Public Health and Education arranges postgraduate instruction on a wide variety of subjects for meetings of county medical societies, hospital staffs, and other medical groups. This program is made available through the combined efforts of the members of the Medical Society of the State of New York, the faculties of medical schools and research institutions, the New York State Department of Health, the Dental Society of the State of New York, the Division of Industrial Hygiene of the New York State Department of Labor, and several other organizations and associations.

A considerable part of these activities is presented in cooperation with the New York State Department of Health. In addition to the courses arranged as series of lectures, speakers on many subjects may be provided for single lectures. The Committee also arranges for a one-day session designated as a "Teaching Day." A Teaching Day is a combination of clinics, demonstrations, and lectures for an afternoon and evening.

The Committee prepares and distributes the Course Outline Book, which lists subjects and speakers available. This year, to provide a wider distribution, the book was printed, which is much better than the bulky mimeographed form. The Course Outline Book is revised annually.

Most of the instructors are connected with the medical schools. In May, 1943, letters were sent to all physicians who had arranged courses in the past requesting them to make any changes in sub-

jects or speakers they desired.

On August 19, 1943, in New York City, the Chairman of the Council Committee on Public Health and Education held a meeting of the Committee with officers of the Medical Society of the State of New York, the chairmen of the Subcommittees on Maternal Welfare, Child Welfare, 4-H Clubs and Youth Health Activities, Tuberculosis and Diseases of the Chest, Industrial Health, Blood and Plasma Exchange Banks, Hard of Hearing and the Deaf, the State Commissioner of Health, the Assistant Commissioner for Medical Administration of the Commissioner of the New York City Department of Health. This meeting was held to review the activities of the Committee in the field of postgraduate education and to discuss plans for the coming year.

Special consideration was given to Maternal and Child Welfare, with reference to the Federal Emergency Maternity and Infant Care Program. The State Commissioner of Health discussed the plan as it operates in New York State. The rheumatic fever program received much attention, as did health instruction in the public schools.

The Chairman of the Subcommittee on 4-H Clubs and Youth Health Activities, as a member of the Home and Farm Safety Advisory Committee of the Division of Public Health Education, New York State Department of Health, discussed this program from the physician's angle and remarked that physicians could contribute to this program in many ways. It was suggested at this meeting that the chairman of the Subcommittee on 4-H Clubs and Youth Health Activities prepare an article on the Home and Farm Safety program and submit it for publication in the New York State Journal of Medicine.

Following this meeting the material for the Course Outline Book was prepared and submitted to the printer. Copies of the Course Outline Book were distributed to officers of the Medical Society of the State of New York, members of the Council Committee on Public Health and Education and the Subcommittees, Regional Chairmen in Obstetrics and Pediatrics, State Commissioner of Health, Assistant Commissioners and Directors of Divisions of the New York State Department of Health, District State Health Officers, City and County Health Commissioners, physicians who arranged courses in the Course Outline Book, presidents, secretaries, and chairmen of Public Health and Program Committees of county medical societies, deans of medical schools in the United States, librarians of the medical schools in the State of New York, secretaries of state medical societies in the United States, Commissioners of Health in the various states, members of the New York State Board of Regents, New York State Commissioner of Education and Directors of several divisions of the New York State Education Department, officers of the American Medical Association and members of the Council on Medical Education and Hospitals of the American Medical Association, Secretary and Executive Secretary of the State Charities Aid Association, State Com-missioner of Mental Hygiene, and Commissioner of the New York State Department of Social Welfare.

The book contains fifty-seven announcements, including outlines of courses, teaching days, and

single lectures on special subjects.

In addition to the instruction offered in the Course Outline Book last year, the Committee arranged for instruction in gynecology, meningococcus meningitis, penicillin, poliomyelitis, and tropical medicine.

Arrangements are being made to increase the

instruction in penicillin therapy.

A list of physicians who will discuss subjects pertaining to home and farm accidents will soon be available.

Arrangements for postgraduate instruction, either as courses consisting of a series of lectures or as single lectures, were made for eighteen county medical societies. The following is a list of the counties which have had or will have had these meetings this year:

County	Instruction	No. Lectures
Albany	Plasma Therapy	1
Broome	[Tropical Medicine	2
	War Medicine and Surgery (jointly with Tiogs County)	, 1

	Obstetrics and Gynecology	3
Cortland	Tropical Medicine	3 1 3 1
- ·	General Medicine	ā
Delaware	Plasma Therapy	Ī
	Orthopaedics	1
	Rheumatic Fever-Rheumatic	
Franklin	Heart Disease	1
rrankiin	Obstetrics	1
	Meningitis	1
	(Tropical Medicine  General Medicine	1
	War Medicine and Surgery	b
Greene	Obstetrics	2
O. conc	Tuberculosis	1 5 2 1
	Nutrition	í
	Rheumatic Fever-Rheumatic	
•	Heart Disease	1
Jefferson	Industrial Medicine	1 1 1 2 1 3
	General Medicine	ĩ
	War Medicine and Surgery	ī
	(Meningitis	2
	Cancer	1
Madison	General Medicine	3
	Penicillin Therapy	1
	Rheumatic Fever-Rheumatic	
Onondaga	Heart Disease	1 2 1
Onondaga	General Medicine	2
Rockland	Penicillin Therapy Tropical Medicine	Ţ
Hockiana	Rheumatic Fever—Rheumatic	1
~. <b>*</b>	Heart Disease	1
St. Lawrence	General Medicine	i
	War Medicine and Surgery	i
Steuben	War Medicine and Surgery	ī
Suffolk	Obstetrics	1
	(General Medicine	1
Sullivan	General Medicine	6
Tioga	Plasma Therapy	1
Tompkins	{Plasma Therapy {General Medicine	1 1 1 1 6 1 1 3
Warren	Plasma Therapy	ئ 1
Yates	Plasma Therapy Plasma Therapy	1
Inces	rasma therapy	,

Regional Meetings and Teaching Days.—For these meetings, invitations were sent to the memberships of the medical societies in counties adjacent to that in which the instruction was given, or to the membership in certain regions and districts where the meetings were held. The Committee arranged for speakers, and for printing and distribution of programs to county medical societies, medical schools, hospitals, the New York State Journal of Medical Association, and other publications. The Medical Society of the State of New York pays traveling expenses of the speakers, and the honoraria for all speakers are paid by the Medical Society of the State of New York State Department of Health. The following is a list of counties where Regional Meetings or Teaching Days have been held or will be held this year:

. ~	Instruction *Cancer	No. Lecture: 2
County—Dutchess Region—Columbia, Dutchess, Greene, Orange, Putnam, Sullivan, Ulster Counties	*Cancer	5
County—Erie Region—Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming Counties	Nutrition	4
County—Jefferson Region—Jefferson, Lewis, St. Lawrence Counties	*Cancer	4
County—Onondaga Region—Cayuga, Cortland, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego Counties	Tuberculosis and Diseases of the Chest	5
County—Otsego Region—Broome, Chemung Chenango, Cortland, Dela- ware, Otsego, Schuyler, Ti- ogu, Tompkins Counties	*Cancer	5

County-Schenectady	*Cancer
tegion-Albany, Clinton, Es-	
sex, Franklin, Fulton, Hamilton, Montgomery, Rensselaer,	
St. Lawrence, Saratoga, Scho-	
narie, Warren, Washington	
Schenectady Counties	

Public health matters receiving particular emphasis from the New York State Department of Health and the Medical Society of the State of New York this year have been cancer, communicable diseases, gynecology, industrial medicine, meningococcus meningitis, nutrition, obstetrics, orthopaedics, pediatrics, penicillin therapy, plasma therapy, poliomyelitis, rheumatic fever-rheumatic heart disease, syphilis, tropical medicine, tuberculosis, and war medicine and surgery. The part of the Committee in these activities has been, to a large extent, in the field of postgraduate instruction. Instruction in many of these subjects has been given and a share of the cost was borne by the New York State Department of Health. The counties and the subjects were the following:

		Ņo
County	Instruction	Lectur
Albany	Plasma Therapy	1
Broome	Tropical Medicine War Medicine and Surgery (jointly with Tioga)	2
Cattaraugus	Teaching Day-Cancer	2
Cortland	Obstetrics and Gynecology Tropical Medicine	1 2 3 1 1 1 5
Delaware	Plasma Therapy	1
Dutchesa	Orthopaedics Teaching Day—Cancer	ŝ
Erie	Nutrition—Teaching Day	Ĩ
	Rheumatic Fever-Rheumatic	
	Heart Disease	i
Franklin	Obstetrics	1 1 2 1
	Meningitis	,
	Tropical Medicine	2
	War Medicine and Surgery Obstetrics	ī
Greene	Tuberculosis	
	Nutrition	1
	Rheumatic Fever-Rheumatic	
	Heart Disease	1
Jefferson	Industrial Medicine	4
	Teaching Day-Cancer	ī
	War Medicine and Surgery	î
	Cancer Penicillin Therapy	Ī
Madison	Rheumatic Fever	1 2
	Moningitie	2
	Teaching Day-Tuberculosis and	2
Onondaga	Disasses of the Chest	Ĩ
	Penicillin Therapy	5
Otsego	Penicillin Therapy Teaching Day—Cancer Tropical Medicine Rhoumetic	ĩ
Rockland	Rheumatic Fever—Rheumatic	
St. Lawrence	Heart Disease	1
Br. Dawlence	War Medicine and Surgery	ļ
Schenectady	Teaching Day-Cancer	1
Steuben	War Medicine and Surgery	i
Suffolk	Obstetrics	2
~ W	Nutrition	ī
Sullivan	Poliomyelitis Chemotherapy	1
Tiogs	Pleama Therapy	1141121111111111
Tompkins	Plasma Therapy Plasma Therapy	1
Warren	Plasma Therapy	1
Yates	Plasma Therapy	•

The Committee arranged for postgraduate instruction to be presented in twenty-three counties with a total of ninety-one lectures—sixty-four of which were given jointly by the New York State Department of Health and the Medical Society of the State of New York.

<sup>\*</sup> Traveling expenses and honoraria of speakers and printing of programs provided by the New York State Department of Health.

#### PART II

#### Maternal and Child Welfare

Maternal Welfare.—In March, 1943,1 Congress made funds available for the states to provide socalled "Emergency Maternity and Infant Care," obstetric and pediatric care (for infants under one year) to wives and infants of men in the armed forces, Army, Navy, Marine Corps, and Coast Guard, of certain grades.

Shortly thereafter (March 24-25), the Children's Bureau of the United States Department of Labor, which directs the program, conferred in Washington with the state and territorial health officers and their directors of maternal and child health programs for the purpose of presenting the Children's Bureau's plans to these officials and discussing the Bureau's administrative regulations governing the use of the Federal appropriations for this purpose.

Immediately after returning from Washington, Dr. Edward S. Godfrey, Jr., New York State Commissioner of Health, requested a conference with the Subcommittee on Maternal Welfare, the Subcommittee on Child Welfare, and the Council Com-

mittee on Public Health and Education.

The first meeting for the discussion of the plan was held in New York City on April 7, 1943. Subsequent meetings were held in New York City on the following dates: June 2, 17; August 19, 25; October 12, 28; December 8, 15, 1943; and January 10, 1944. These conferences were attended by the President, President-elect, members of the Council Committee on Public Health and Education and the Subcommittees on Maternal Welfare and Child Welfare, and sometimes other officers of the Medical Society of the State of New York, the State Commissioner of Health and members of his staff, and the Commissioner of Health of the City of New York Department of Health and members of his

The Regional Chairmen in Obstetrics and the Regional Chairmen in Pediatrics attended the meeting held on October 28, 1943. Copies of the "Proceedings" at this meeting were supplied to

every member of the Council.

The features of the E.M.I.C. Program, as pre-ented by the Children's Bureau, which have received particular attention by the members of the conferences are the following:

1. The requirement that payments be made directly to the physician or hospital rendering service. It was the view of the Council Committees\* that this money should be given as a cash allotment directly

to the serviceman's wife.

2. The provision of hospital care at the "ward cost per patient day" to be determined by a prearranged formula. It was the opinion of the Council Committees that the use of ward facilities would tend to direct patients away from private care, inasmuch as many hospitals, especially in the metropolitan New York area, would not permit private patients on their open wards.

3. Provision for remuneration of physicians. It was the opinion of the Council Committees that the compensation provided for maternal care was

New York State J. Med. 43: 1133 (June 15) 1943.

The term "Council Committees" as herein and subsequently used in this Report shall mean the Council Com-

mittee on Public Health and Education and its Subcommittees on Maternal Welfare and Child Welfare.

low in comparison to that usually received by physi-

cians in New York State for such services.

4. The plan provides for additional fees where the services of a qualified consultant are required, but makes no provision for recognizing the extra services of a qualified obstetrician or pediatrician where such physician has undertaken the basic maternity or sick infant care of a patient under the plan. In other words, if an obstetrician accepts a maternity case he must provide all care related to the pregnancy, including the care of major obstetric complications for the fixed fee, whereas, if the basic maternity care is given by a general practitioner at the same fee, he is not expected to care for major complications and may call upon a qualified specialist, to whom a separate fee is paid.

The Council Committees believe that some system should be devised for recognition of the extra services of the qualified specialist and for compensating him in keeping with the extra services ren-

dered

Fees paid under the plan must be the only compensation received for the services authorized under the This regulation provides that the payments to the hospitals or physicians by the State Department of Health cannot be used as a means of part payment for more luxurious hospital accommodations other than those offered under the plan nor can the patient pay the physician a supplementary fee regardless of her possible ability to do so.

The Council Committees believe that in view of the failure to have the available funds paid directly as a cash allotment, an alternative would be to allow the funds available to be paid directly to the physician or hospital as complete or partial payment for the services rendered, in accordance with the patient's own arrangements with the physician and

Initial plan that care given preceding date of authorization of the formal application for care could not be paid for under the plan. The Council Committees and the State Commissioner of Health objected strenuously to these limitations on the ground that they set the necessary administrative procedures above the actual intent of the appropriation, and the initial plan for New York State submitted to the Children's Bureau made broad provisions for retroactive approvals to provide care for those eligible from April 1, 1943.

The New York State Plan<sup>2</sup> was finally put into effect on July 1, 1943.

The Children's Bureau has made changes in the plan as a result of recommendations proposed at conferences of the Council Committees and representatives of the New York State Department of Health. (See"A Report of the Council Committees on the Federal Emergency Maternity and Infant Care Program in New York State," New York State Journal of Medicine, February 1, 1944, Vol. 44, No. 3, p. 295.) Efforts to obtain further desirable changes have by no means ceased. Although the members of the conformation (See"A Report of the Council Committees though the members of the conferences were dissatisfied with several aspects of the program, there never were any objections to its objective, namely, to assure good maternity and infant care for the families of men in the armed forces. This opinion was officially expressed by the House of Delegates of the American Medical Association<sup>3</sup> and has been

<sup>2</sup> A summary statement of this plan appeared in the February I issue of the New York State Journal of Medicine. Vol. 44. No. 3, p. 298.

J.A.M.A. 122, 621 (June 26) 1943.

repeatedly expressed by the officers of the Medical Society of the State of New York and in resolutions of many of its constituent county medical societies.

At the later conferences many details of the plan and several major issues which had not been previously presented to the Children's Bureau have been discussed and further adjustments in the plan are anticipated.

The following are examples of matters now pend-

The initial plan of the Children's Bureau urges the importance of infant health supervision but in so doing provides that it must be rendered through approved child health conferences or well-baby clinics where they exist and are available without a so-called "means test." Where such are not available such supervision can be given under the plan only by a pediatrician or physician meeting special qualifications in this field.

While the Council Committees and the State Commissioner of Health were thoroughly in accord with the inclusion of provisions for health supervision, they felt that the regulations were impractical and unreasonable in that they did not permit the patient the choice of a child-health conference or a private physician, nor did they make a reasonable provision for the general practitioner who may de-liver the baby and take care of it while it is sick but not supervise it while it is well.

These objections were presented by the State Commissioner of Health and other persons and groups, and early revision of the present policies is anticipated so that health supervision may be established on a more reasonable and workable

2. The Children's Bureau has interpreted the appropriation as intended to cover all medical care required by the expectant mother throughout her preg-nancy and for six weeks thereafter. In this inter-pretation it has stated that the fee for complete maternity care or the fees for such additional consultant services as may be indicated shall cover all necessary medical care during said period.

The Council Committees and the State Commissioner of Health believe that this policy is un-reasonable and will be changed in favor of fairer definition of the types and extent of illnesses which the physician is called upon to care for under the fee

for complete maternity care.

3. Criticism by the practicing physicians of the various forms and statements which the State Department of Health has required in the operation of this plan. At the request of the State Commissioner of Health, the President of the Medical Society of the State of New York, with the approval of the Council, appointed the following physicians as a committee to advise with the State Commissioner of Health on the revision and simplification of these preliminary forms:

George W. Kosmak, M.D. New York James K. Quigley, M.D. Rochester Herbert E. Wells, M.D. Buffalo

The State Commissioner of Health has told the Council Committees that the revision is completed and that simplified forms have resulted which should reduce to a minimum the complexity of this particular phase of the program.

There has been splendid cooperation between the official State agencies and the Medical Society of the State of New York in the development of the plan for the State of New York.

The Subcommittee on Maternal Welfare has the following members: Charles A. Gordon, M.D., Chairman, Brooklyn; Edward C. Hughes, M.D., Syracuse; Alexander T. Martin, M.D., New York; James K. Quigley, M.D., Rochester.

Regional Chairmen in Obstetrics:

New York, Richmond, Bronx Counties George W. Kosmak, M.D., 23 East 93 Street, New York 28

Kings, Queens, Nassau, Suffolk Counties Harvey B. Matthews, M.D., 643 St. Marks Avenue, Brooklyn 16

Westchester, Rockland, Dutchess, Putnam, Orange Counties Julian Hawthorne, M.D., 131 Purchase

Street, Rye Schenectady, Fulton, Montgomery, Schoharie, Greene, Ulster Counties William M. Mallia, M.D., 1364 Union Street, Schenectady 8

Albany, Washington, Saratoga, Columbia, Warren, Rensselaer Counties

Joseph O'C. Kiernan, M.D., 496 Madison Avenue, Albany 3 Clinton, Essex, Franklin, St. Lawrence

Counties Elmer Wessell, M.D., 72 Clinton Street,

Plattsburg Jefferson, Lewis, Herkimer, Hamilton Counties James L. Crossley, M.D., 240 Woolworth Building, Watertown

Onondaga, Oswego, Oneida, Madison, Cortland, Cayuga Counties Edward C. Hughes, M.D., 601 Medical

Arts Building, Syracuse 2 Broome, Tioga, Chenango, Otsego, Delaware,

Sullivan Counties
Stuart B. Blakely, M.D., 140 Chapin
Street, Binghamton
Monroe, Orleans, Wayne, Livingston, Ontario, Yates, Seneca Counties
Wall Flyes, M.D., 176 South Goodman

Ward L. Ekas, M.D., 176 South Goodman

Street, Rochester 7 Chemung, Schuyler, Steuben, Tompkins,

Allegany Counties R. Scott Howland, M.D., 531 West Water Street, Elmira

Erie, Niagara, Chautauqua, Cattaraugus, Genesee, Wyoming Counties Robert C. McDowell, M.D., 40 North Street, Buffalo 2

Child Welfare. - Members of the Subcommittee on Child Welfare have attended many of the meetings held by the Council Committee on Public Health and Education for the discussion of the Federal Emergency Maternity and Infant Care program. For a report of these activities see the report of the Subcommittee on Maternal Welfare

Members of the Subcommittee have also attended meetings held by the Council Committee on Public Health and Education with representatives of the State Education Department to consider the course content for health instruction in the junior and senior high schools. For a report of these activities see the report on "School Health Program."

The Subcommittee on Child Welfare has the following members: Alexander T. Martin, M.D.,

Notably, District Number 1 (upstate New York) of the American Academy of Pediatrics, the American Academy of Pediatrics, and the conference group called by the Children's Bureau in Washington on December 10 and 11, 1943.

Chairman, New York; Paul W. Beaven, M.D., Vice-Chairman, Rochester; Charles A. Gordon, M.D., Brooklyn; Albert D. Kaiser, M.D., Rochester; A. C. Silverman, M.D., Syracuse.

Regional Chairmen in Pediatrics (for regions comprising counties as shown in above list of Regional Chairmen in Obstetrics):

Harry Bakwin, M.D., 132 East 71 Street, New York 21

Charles A. Weymuller, M.D., 85 Pierrepont Street, Brooklyn 2

Reginald A. Higgons, M.D., 264 King Street,

Port Chester

James J. York, M.D., 930 State Street, Schenectady 7

Hugh F. Leahy, M.D., 176 Washington Avenue, Albany 6

6. Sidney Mitchell, M.D., 71 Court Street, Plattsburg Norman L. Hawkins, M.D., 300 Woolworth

Building, Watertown Brewster C. Doust, M.D., 605 Medical Arts

Building, Syracuse 2

John B. Burns, M.D., 153 Chapin Street, Binghamton

Albert D. Kaiser, M.D., 16 North Goodman

Street, Rochester 7 11. George R. Murphy, M.D., 531 West Water

Street, Elmira William J. Orr, M.D., 135 Linwood Avenue, Buffalo 9

#### PART III

# School Health Program

In the "Regulations of the Commissioner of Education Governing Health and Physical Education," published in July, 1943, the following paragraph appears on page 4:

"Health Teaching in the Secondary Schools. The secondary school curriculum shall include health teaching as a constant for all pupils. In addition to continued health guidance in the junior high school grades, provision shall also be made for approved health teaching, either as a part of a broad science program or as a separate course. In addition to continued health guidance in the senior high school, provision shall also be made for an approved course or courses in health teaching carrying one unit of credit. Health teaching shall be required for all pupils in the junior and senior high school grades and shall be taught by teachers with approved preparation. A member of each faculty with approved preparation shall be designated as health coordinator, in order that the entire faculty may cooperate in realizing the potential health-teaching values of the schoolprogram."

To assist in the preparation of a "syllabus" for health teaching in the high schools, the Subcommittee and the syllabus of the mittee on Child Welfare and the three physicians designated by the Council to act in an advisory capacity to the State Education Department have attended several conferences with representatives of the State Education Department. These meetings were held on June 24; July 2, 30; September 3, 8, 27; October 12; December 8, 1943; January 10; and February 2, 6, 1944. Also present at these conferences were represented by the State Department of the State Sta ferences were representatives from the State Department of Health and the New York State Association

of School Physicians.

The syllabus in tentative form will soon be submitted to the New York State Education Depart-

Examination of teachers and other school personnel, as a part of the tuberculosis control program, is receiving the attention of the State Education Department. Members of the State Education Department have been appointed by the Commissioner of Education, Dr. George D. Stoddard, to study similar programs in the various states. representative of the State Education Department has been designated by Commissioner Stoddard to represent the Department on the State Tuberculosis Conference Committee.

In reply to a letter from Dr. George M. Wheatley, Assistant Medical Director, Metropolitan Life Insurance Company, under date of November 5, 1943, addressed to the Chairman of the Council Committee on Public Health and Education, regarding the activities of the Medical Society of the State of New York in school health, the following statement was submitted on December 3, 1943:

"The Medical Society of the State of New York has been interested in the School Health program for several years. The Council Committee on Public Health and Education and several subcommittees have concerned themselves with many programs, including the following: (a) school health service organization at the state level; (b) standardization of the physical examination for school children and other youth groups; (c) health education in the elementary and secondary schools including a required formal course with credit in high school; (d) the course content for health instruction in the high school; (e) qualifications for school physicians serving less than half time; (f) undergraduate instruction of medical students in school health; (g) postgraduate instruction in school health; (h) school health committees for county medical societies (forty-four of the sixtyone county medical societies now have committees on School Health); (i) rheumatic fever-rheumatic heart disease as a part of the school health program; (j) health examinations, including xrays, for teachers and other personnel as a part of the tuberculosis control program have been receiving attention during the present year, especially by the Subcommittee on Tuberculosis and Diseases of the Chest.

"There has been very satisfactory cooperation between the State Departments of Education and Health, the New York State Association of School Physicians, the Dental Society of the State of New York, and several other organizations concerned with the School Health program and the Medical Society of the State of New York. Conferences are held quite frequently."

To date, forty-five of the sixty-one county medical societies have appointed committees or designated representatives in school health.

The membership of the Advisory Committee of the Medical Society of the State of New York to the State Education Department is as follows:

Paul W. Beaven, M.D., Vice-Chairman, Sub-Committee on Child Welfare, 26 South Goodman Street, Rochester

J. G. Fred Hiss, M.D., Chairman, Subcommittee on 4-H Clubs and Youth Health Activities, 505 State Tower Building, Syracuse

A. C. Silverman, M.D., member, Subcommittee on Child Welfare, 608 East Genesee Street, Syracuse

#### PART IV

#### Public Health Activities

4-H Clubs and Youth Health Activities .- The Chairman of this Subcommittee, Dr. J. G. Fred Hiss, Syracuse, attended a meeting in Syracuse on November 10, 1943, of the Health Committee of the 4-H Club. The health program of the 4-H Club was discussed. It was felt that the program was very satisfactory in those counties in which it was being followed, but, unfortunately, too few counties were interested in reporting their results. A report was distributed at this meeting and everyone felt that there were many others examined, especially as it is possible to use the school examinations in counting the health program or determing the per-centage, but that many counties were probably so busy with other phases of war work that they neg-lected the tabulation of data. Methods were discussed for making these other counties more healthconscious so that they would develop a desire to push the health activities and to report their results.

The Council has indorsed the Home and Farm Safety Program of the State Department of Health. This special program is conducted under the leadership of the Division of Public Health Education with the help of an Advisory Committee on Home and Farm Safety. Dr. J. G. Fred Hiss, already closely connected with the Division through work with 4-H Clubs and other youth groups, is chairman of the Physician's Committee on Personal Health and Safety. The Chairman of the Council Committee on Public Health and Education is also a member of this Committee. Drs. Hiss and Mitchell have attended several meetings of this Committee. At a meeting arranged by the State Home and Farm Safety Committee held in Albany on January

18, 1944, Dr. O. W. H. Mitchell was one of the

speakers.

As a part of the Home and Farm Safety program, a group of physicians will soon be designated to discuss appropriate subjects at meetings of county medical societies. A list of subjects and speakers will appear in the next issue of the Course Outline Book.

Tuberculosis and Chest Diseases.—At the time of the Annual Meeting of the Medical Society of the State of New York last year, the Subcommittee on Tuberculosis and Diseases of the Chest held a luncheon meeting on May 5, 1943, at Hotel Statler, Buffalo. Present at this meeting were representatives of county medical societies and other groups interested in the tuberculosis control program. About one hundred physicians attended this session. This meeting was held to acquaint the county society representatives with the objectives of the program and many physicians were chosen to present different problems. It was a successful meeting and very much worth while.

As reported last year, with the approval of the Council, the Subcommittee communicated with the secretaries of the county

them to appoint commit.

to represent the societies in the field of tuberculosis To date, fifty-two of the sixty-one county control. medical societies have done so.

The education program available appears in the

Course Outline Book.

The Subcommittee arranged for a Teaching Day on Tuberculosis and Diseases of the Chest, which was held in Syracuse on July 9, 1943. The meeting was well attended and comments received were favorable.

Preceding this meeting the Subcommittee held a

meeting in Syracuse.

On October 13, 1943, a meeting of the Subcommittee was held in New York City to consider the development of the teaching day programs to be presented in the western and southern parts of the State. Also at this meeting arrangements were discussed regarding the Annual Meeting of the Medical Society of the State of New York. In addition to the members of the Subcommittee, representatives from the New York State Department of Health were also present at the meeting.

The Subcommittee is collaborating with the officers of the Section on Medicine to have the subject of tuberculosis presented at the 1944 Annual Meeting of the Medical Society of the State of New York, to be held in New York City. Arrangements have been completed for an exhibit at the time of the

Annual Meeting.

As a part of the Tuberculosis Control program, the Chairman of the Subcommittee on Tuberculosis and Diseases of the Chest has conferred with representatives of the State Education Department regarding the examination of teachers and other school personnel.

The Chairman of the Subcommittee on Tuberculosis and Diseases of the Chest is a member of the

State Tuberculosis Conference Committee. The membership of the Subcommittee on Tuberculosis and Diseases of the Chest is as follows:

Charles D. Post, M.D., Chairman, 608 East Genesee Street, Syracuse

Louis C. Kress, M.D., State Department of Health, Albany

Nelson W. Strohm, M.D., 289 Linwood Avenue, Buffalo

Dental Health.—The educational program arranged by this Joint Committee appears in the Course Outline Book.

The Joint Committee on Dental Health has the

following members:

Medical Society of the State of New York:

O. W. H. Mitchell, M.D., Chairman, 428 Greenwood Place, Syracuse 10

Harry Aranow, M.D., 355 West 149 Street,

Bronx 55 Herbert H. Bauckus, M.D., 89 Bryant Street, Buffalo 9

Dental Society of the State of New York:

Charles M. McNeely, D.D.S., 1 Nevins Street

Brooklyn 17 Douglas B. Parker, M.D., D.D.S., 121 East 60

Street, New York 22 Leuman M. Waugh, D.D.S., 931 Fifth Avenue,

New York 21

War Medicine and Surgery.—This Subcommittee offers an educational program the same as last year's and several lectures were arranged for county medical societies. See report on "Postgraduate Education."

The membership of the Subcommittee on War

Medicine and Surgery is as follows:

O. W. H. Mitchell, M.D., Chairman, 428 Green-wood Place, Syracuse 10

Gustave Aufricht, M.D., 103 East 86 Street, New York 28 Louis H. Bauer, M.D., 503 Professional Building,

Hempstead

L. Whittington Gorham, M.D., 214 State Street,

Leonard Greenburg, M.D., 80 Centre Street, New York 13

Leo Mayer, M.D., 1150 Fifth Avenue, New York 28

James E. Perkins, M.D., State Department of Health, Albany 1

Byron Stookey, M.D., Neurological Institute, New York 32

Frederick S. Wetherell, M.D., 514 Medical Arts Building, Syracuse 2

Industrial Health.—The Study Committee on Industrial Health has the following membership:

Herbert H. Bauckus, M.D., Chairman, 89 Bryant Street, Buffalo 9

Robert K. Brewer, M.D., 865 Livingston Avenue, Syracuse 10

John H. Garlock, M.D., 50 East 77 Street, New York 21

David J. Kaliski, M.D., 292 Madison Avenue, New York 17

John S. Lawrence, M.D., 260 Crittenden Boulevard, Rochester 7

Edward S. Godfrey, Jr., M.D., Commissioner of Health, State Department of Health, Albany 1, ex officio

Leonard Greenburg, M.D., Executive Director, Division of Industrial Hygiene, State Department of Labor, 80 Centre Street, New York 13, ex officio

Each year the Council on Industrial Health of the American Medical Association has a conference in Chicago. The Council requested that the county medical societies appoint committees in this field.

During the past year, the Study Committee on Industrial Health wrote letters to the secretaries of the county medical societies and requested them to appoint committees or designate representatives in Industrial Health. To date, thirty-four of the sixty-one county medical societies have done this.

On June 24, 1943, in Buffalo, the Buffalo District Committee for Industrial Health held a Symposium on Wartime Nutrition. It was a very successful meeting and well attended. The Chairman of the Study Committee on Industrial Health is also Chairman of the Buffalo District Committee for Industrial Health.

The educational program of the Study Committee on Industrial Health appears in the Course Outline Book. Industrial medicine is also associated with many of the postgraduate education programs but is not so designated.

In answer to a letter received from Dr. Orlen J. Johnson, Council on Industrial Health, American Medical Association, on January 21, 1943, regarding the activities of the Study Committee on Industrial Health, the Chairman of the Council Committee on Public Health and Education replied as follows:

"In July, 1943, letters were written to the secretaries of the county medical societies stating that because of the increased interest and expansion of activities in Industrial Health, it was advisable that each county medical society appoint a committee on Industrial Health—either as a separate committee or as a subcommittee of the Committee on Public Health. To date, thirty-four of the sixty-one county medical societies have appointed committees or subcommittees on Industrial Health.

"As you know, the Council Committee on Public Health and Education conducts an active postgraduate program in connection with county raedical societies and sometimes other medical groups. Many meetings have been arranged during the past year. Several of these sessions should be considered part of our Industrial Health program but only one was so designated."

A list of the names of the chairmen of Industrial Health Committees in county medical societies was furnished the Council on Industrial Health of the American Medical Association.

Hard of Hearing and the Deaf.—The Subcommittee on Hard of Hearing and the Deaf reports that it is the accepted policy of the American Academy of Ophthalmology and Otolaryngology to have in each state a committee of two men who are to work through the county committees for the Hard of Hearing and the Deaf.

In New York State we are more fortunate than many other states in that we have legislation which when polished and activated would be effective in discovering the deaf and the hard-of-hearing child, as well as providing him with proper educational facilities.

The Subcommittee is endeavoring to correlate the activities of each county society into a general state movement to bring about, if possible, complete coverage for these handicapped youngsters.

The Subcommittee on the Hard of Hearing and the Deaf has the following members:

C. Stewart Nash, M.D., Chairman, 277 Alexander Street, Rochester 7

Ralph Almour, M.D., 71 East 80 Street, New York 21

John F. Fairbairn, M.D., 925 Delaware Avenue, Buffalo 9

Edmund Prince Fowler, M.D.,140 East 54 Street, New York 22

Blood and Plasma Exchange Bank.—At the annual meeting of the House of Delegates of the Medical Society of the State of New York held in Buffalo on May 3-4, 1943, the following resolution was passed:

"Resolved, that the Medical Society of the State of New York sponsor the extension of the activities of blood and plasma exchange banks throughout the State, with the view toward assisting and encouraging blood and plasma exchange banks to extend to the sick throughout the State, and even to our remotest communities, the benefits they are now rendering: and further be it

are now rendering; and further be it

"Resolved, that the Medical Society of the State
of New York refer this matter to a Council Committee or a Special Committee on Blood Transfusion to accomplish these aims."

A Subcommittee on the Blood and Plasma Exchange Bank was appointed by the President of the Medical Society of the State of New York; the membership is as follows: George M. Mackenzie, M.D., Chairman, Cooperstown; Morris Maslon, M.D., Glens Falls; Lester J. Unger, M.D., New York; ex officio: John J. Bourke, M.D., Office of Civilian Defense, New York; Edward S. Rogers, M.D., State Department of Health, Albany.

The Subcommittee and the Council Committee on Public Health and Education have held four meetings: June 24, July 15, August 19, and October 13, 1943. Representatives of the New York State Department of Health, the New York State Association of Public Health Laboratories, and others have attended one or more meetings and have generously given the Subcommittee the benefit of their advice.

The Subcommittee made an extensive study of blood and plasma banks now operating in New York State, exclusive of New York City. From the data collected and information provided by many physicians directly or indirectly concerned with such services, the Subcommittee submitted its report in December, 1943. This report, with the recommendations, was submitted to the Council at the meeting on December 9, 1943. The recommendations are as follows:

(a) Methods of Repayment.—The Subcommittee believes that a State-supported system of distribution, without charge, of blood or blood derivatives, similar to the system now operated by the New York State Department of Health for the distribution of sera and other biologicals, would be inadvisable.\*

The Subcommittee favors the principle of payment for blood and blood derivatives and recommends the cash-or-kind method. In this connection it should be noted that many banks report that attending physicians are often lax in getting the families of recipients to produce the donors for repayment, and that as a consequence the banks are frequently faced with a deficit. It is believed that with the cooperation of local physicians this system of repayment could be extended, at least for the distribution of plasma, to rural areas. It is recommended that each time a physician uses one or more units of plasma it would be his responsibility to collect cash or arrange with the family to send donors to the bank which had supplied him with plasma. The burden of collection should not be placed on the bank. Repayment in rural areas, when not made entirely in cash, would presumably be best accomplished in most instances by sending donors to the distributing centers in approved laboratories which would be equipped to collect blood and separate the The liquid plasma when desirable would then be sent to the New York State Department of Health; after desiccation it would be returned to the local bank.

(b) System of Distribution.—The Subcommittee recommends (1) that existing banks, wherever the need exists, increase their facilities for distribution of blood or blood derivatives within the areas they now serve; (2) that they study the possibilities of extending their services to adjacent territory. In some places this might be accomplished by allowing individual physicians to keep on hand one or more units of plasma; in other instances relations with smaller satellite hospitals might be established and these smaller institutions would then be provided with blood or plasma or both, depending on the facilities available at the satellite hospital; (3) that in areas which would not be reached by the system of distribution outlined in (1) and (2) the approved laboratory serving the area undertake the establishment of either a blood bank or a plasma bank, whichever in the opinion of the laboratory director seems more advisable. The Subcommittee suggests that banks of this kind, operating in sparsely settled areas, could increase their effectiveness by using

local health officers to aid in distribution. Each local health officer in such areas might constantly have on hand a small quantity of plasma. He could, if it seemed to him advisable, permit individual physicians to retain constantly one or two units of plasma.

(c) Role of the New York State Department of Health.—(1) The Subcommittee recommends that the Commissioner of Health, in addition to exercising general supervision of the blood and plasma banks of the State, shall establish such standards as he may consider desirable for the various procedures—bleeding, processing, preservation, preparation of equipment, blood grouping, etc.—involved in transfusion of blood or blood derivatives and that banks be required to meet these standards in order to be approved and that no bank be permitted to operate without the approval of the New York State Department of Health.

(2) The Subcommittee recommends that the New York State Department of Health secure the necessary equipment and personnel to desiccate plasma and that it be prepared to render this service free of charge for all the blood and plasma banks of New York State.

(3) The Subcommittee recommends that State aid, mediated by the New York State Department of Health, be made available throughout the State exclusive of New York City, (a) to defray the expenses of existing banks in extending their facilities, and (b) to defray the expenses of approved laboratories which meet the standard requirements established by the New York State Department of Health and indicate their intention to start banks. Once equipped, organized, and in operation the Subcommittee believes that the bank should, by a competently administered system of repayment, be self-supporting; but the Subcommittee recommends that the New York State Department of Health be designated as the authority to decide whether State aid shall be for equipment only or for the expenses of operation or for both.

(4) The Subcommittee recommends that the Commissioner of Health seek the necessary authorization and appropriation from the legislature to carry out the portion of the program, as outlined above, which is to be administered by the New York State Department of Health.

(d) Getting Started on the Expanded Program Recommended by the Subcommittee.—The Subcommittee has received tentative acquiescence from officials of the U.S. Office of Civilian Defense in the proposal that OCD frozen or dried plasma be loaned to the New York State Department of Health for distribution to existing banks willing to expand their transfusion facilities or to approved laboratories intending to organize banks. The Subcommittee has also been tentatively assured that until such time as the New York State Department of Health is prepared to receive and desiccate plasma the Strong Memorial Hospital in Rochester, New York, for a very small fee per unit, will undertake to render this service for blood and plasma banks of the State.

(e) Educational.—The Subcommittee wishes to emphasize the importance of a continuing educational program as an essential feature of an integrated system of blood and plasma banks in New York State. The Subcommittee recommends that the principal responsibility for the program of education in the use of blood and blood derivatives shall reside with the Council Committee on Public Health and Education and that in executing the program the Council Committee shall collaborate with the

<sup>\*</sup> Blood and plasma banks now operating in the State offer alternatives in methods of payment: (1) payment in cashthe amount charged should include a small service charge, (2) payment partly in cash and partly in blood donations by friends and relatives; (3) payment entirely by blood donations from relatives and friends of the recipient. Experience has shown a two for one ratio in repayments for blood or blood derivatives provided by the bank is usually necessary; this allows a margin for such contingencies as unusable blood, loss by breakage, failure to obtain repayment, less than a full unit obtained on bleeding donor.

New York State Department of Health. The Subcommittee also recommends that the directors of approved laboratories shall assume an important share of the responsibility for, and by individual consultations and other appropriate measures participate actively in, the local educational program.

Thus a three-cornered collaboration of the Council Committee, the State Department of Health, and the approved laboratories should, in addition to other educational activities, seek to enlist the active cooperation of the county medical societies in the program of professional and lay education in the newer knowledge of transfusions of blood and blood derivatives. The generous cooperation and assistance of the staffs of the medical schools of the State can be counted on for valuable contributions to the educational program.

These recommendations were approved by the Council. Copies of the "Report" were sent to the State Commissioner of Health, Dr. Edward S. Godfrey, Jr., and to the members of the Public Health Council of the State Department of Health.

#### PART V

#### Publications

The Publication Committee personnel during the year 1942-1943 has been:

Trustee, Thomas M. Brennan, M.D.,

Chairman. Brooklyn General Manager, Peter Irving, M.D. New York Treasurer, Kirby Dwight, M.D. New York Business Manager of Journal and

Directory, Dwight Anderson.... New York Literary Editor, Laurance D. Red-

way, M.D.....Ossining

Directory.—The Council referred for study to the Publication Committee the action of the House: "that if conditions at all warrant publication of a 1944 Directory this should be undertaken, and, furthermore, that all physicians in the military services should have an adequate listing of their contributions to the armed forces. Such a new Directory would be a sustainer of morale and also be of much practical value."

The Publication Committee gave extended study to possible production of a 1944 Directory and, in lieu of that, a "supplement." With many physicians in service from the State of New York, personal data would be often hard to obtain correctly. Also, difficulties of compilation would be enormously increased with the end result a matter of potential, unsatisfactory results. In particular, the publication of a "supplement" would be, it was thought by the Committee and the Council, unsatisfactory. The Council believes that "conditions" do not "warrant" publication of a 1944 Medical Directory of New York, New Jersey, and Connecticut.

Journal.—The New York State Journal of MEDICINE has been produced in the year 1943 in the usual fashion, but with exceptional attention to the need to cut down the use of paper. It became necessary to cut down the size by 1/4 inch in length and width, thus making narrower margins on the sheets. In addition, the Committee decided to narrow the margins still more by the increase of the actual type space by two picas both ways, north and south, and east and west! The net result has been paper saving and more printed words per issue.

The total pages were kept at ninety-six (with the Convention issue 128) until it became possible to

raise the content to 112 pages per issue beginning with the September 1, 1943, issue, still keeping within the allotted amount of paper. Use of paper of less weight per sheet had been begun in June, 1943.

The text content for the year ran along in about the same page fashion as in 1942. Of the whole 2,464 pages, 1,557 were text. Scientific articles to the number of 189 totaled 1,081 pages, with the remainder divided as follows:

Medical News	105 pages
Editorials	80 pages
Hospital News	56 pages
Book Reviews	43 pages
Honor Roll	26 pages
Postgraduate Education	16 pages
Medicine and the War	13 pages
Health News	13 pages
Index	12 pages
Correspondence	10 pages
Woman's Auxiliary	10 pages
Medicolegal	2 pages
Miscellaneous	19 pages
Also	• -
Annual Reports	72 pages
Minutes of Annual Meeting	65 pages

As to finances, the Business Manager, Mr. Dwight Anderson, has given the following report:

#### FINANCIAL REPORT

The operation of the Journal made an improvement of \$14,462.85 over 1942. In that year, the publication showed a deficit of \$8,367.27. In 1943 it showed a surplus of \$5,995.58. This figure is computed from the audits, before adding to income the sum of \$1.00 per year per member for subscriptions, as required by second-class postal regulations.

Subsequent to the death of Mr. Kent Lighty, advertising manager, in January, 1943, a settlement was made with his estate which is more particularly described in the report of the Treasurer of the Society. On May 1 the Society took over the management of its own advertising solicitation under the management of Mr. Anderson. Two advertising salesmen were employed: Mr. Gordon Marshall and Mr. Charles L. Baldwin, Jr.

In 1942, the Journal published advertising in the gross amount of \$89,870.27; in 1943, \$117,-733.20. The cost of selling, proportionately to the amount published, was slightly reduced under the

new plan.

It was decided to use the same setup for selling technical booth space at annual meetings, a matter which has been the responsibility of the Publication Committee for several years. Total sales for 1944 amount to approximately \$21,000. This is \$2,000 more than the last meeting in New York in 1942. The costs of selling space have been drastically reduced by this change, and a saving in 1944 shown of \$3,250 below what it would have cost to sell the same amount of space under the previous arrangement.

March 20, 1944

### Medical Publicity

This year publicity activities have been addressed principally to opposing the Wagner-Murray-Dingell bill and explaining medical indemnity insurance. Details will be found herein later under appropriate headings.

Releases .- Routine coverage with the press was continued throughout the year on meetings of dis-

trict branch societies and the postgraduate courses of the Committee on Public Health and Education. In connection with publicity for the Annual Meeting at Buffalo, circulars were prepared and distributed regarding the "War Medicine" features of the meeting. This is believed to have contributed to the unexpectedly large attendance at that meeting.

Bulletins.—The following bulletins have been distributed: No. 53, "Pneumonia"; No. 54, "Share Your Blood With the Boy Next Door"; No. 55, "It's Only Measles"; No. 56, "If It's Good Enough for Our Soldier Sons. . . ."; No. 57, "The Seven Old Graves"; No. 58, "Sniffles"; No. 59 "The Art of Doing Nothing"; No. 60, "All Cripples Don't Wear Braces"; No. 61, "The Answer to Socialized Medicine"; No. 62, "Examine Your Local Plan"; No. 63, "A Community Program for Women's Auxiliaries."

Printed Matter.—"Like a Letter From Home" is the title of a pamphlet which was distributed at the Annual Meeting at Buffalo and to the membership through county medical societies. It consisted of pictures illustrating activities of the profession in the war, and brief excerpts from letters from members regarding the value of the New York STATE Journal of Medicine to men in the armed service.

Wide distribution was given two leaflets issued in opposition to the Wagner-Murray-Dingell bill: "Old Doc Politics is Back Again," of which 119,065 copies were distributed as of March 1, 1944, and "It Can't Be Done," 60,881 copies. Not only did this material go to each member of the Society, but also to members of groups such as the New York County Lawyers' Association and Bar Association, Rotary and Lions Club members, Chambers of Commerce, social workers, dentists, teachers, preachers and influential churchmen, labor union leaders, farmers, nurses, and insurance men. Copies were supplied in bulk to members of the Society for redistribution, and to county societies and outside organizations for the same purpose.

Women's Auxiliary.—A special effort was made during the year to assist the Women's Auxiliaries throughout the State in identifying themselves more closely with public affairs affecting the practice of medicine. Miss Yolande Lyon, of Buffalo, joined the staff of the Public Relations Bureau September 1, 1943, as field representative. She has been prin-cipally engaged in this part of the Bureau's activities. She has received valued assistance in getting this work organized from Mrs. J. Leslie Sullivan, Mrs. Luther H. Kice, Mrs. Carlton E. Wertz, and Mrs. Jesse Levy.

Medical Indemnity Insurance.—Efforts to promote medical indemnity insurance during the past year indicate that the time has arrived when the membership is ready for wider participation in these It is proposed that the Public Relations Bureau address its principal attention during the coming year to popularizing this type of insurance, not only because it appears to be a way to defeat the socialization of medicine, but primarily because it meets a real need of the times in which we live.

#### PART VI

## Public Relations and Economics

The Council Committee on Public Relations and Economics continued with the same personnel:

Herbert H. Bauckus, M.D., Chairman...Buffalo Harry Aranow, M.D....Bronx
Charles M. Allaben, M.D...Binghamton The Committee presents the following report.

#### REPORT

Never before in the history of our country has it been so important that the people clearly understand the standards and the aims of the practitioners of medicine. We are fighting a world war abroad, we are producing and training for war on an all-out basis at home; inevitably the economic conditions presented by such a general social upheaval are most difficult to cope with, and really impossible to satisfactorily control. Here indeed, is the occasion for

tolerance and the time to stand by.

Again the medical profession finds its part in the winning of the war to be its most important work. To preserve the health and life of the men, and the women too, in the field: to safeguard their families and their workers here at home, are the greatest tasks ever to confront our practicing profession. The fact that approximately one-third of our physicians are being utilized in the active military service should indicate the magnitude of the planning needed to provide for adequate medical care. And yet our fighters and our nation at home have the best health experience there is in the world. We reflect with satisfaction on this picture, yet we must not forget that a large part of our membership is, for the duration at least, away from the deliberations and decisions of the organizations of medicine. Not only do these military physicians have a right to our fraternal interest, they deserve as well the appreciation of all our people, and especially do they merit a warm consideration by hospital managements and staffs.

The Public Relations and Economics Committee personnel have kept in close touch with the work of

the Committee on War Participation.

It has followed carefully the detailed discussions of the new Planning Committee for Medical Policies which, by command of the 1943 House of Delegates, was directed to consider the following:

The distribution of physicians.

Educational requirements for licensure.

Voluntary insurance plans and other plans for 3. decreasing the costs of medical care.

Socializing influences.

Relationships of the medical profession with government agencies, commercial laboratories, and vendors concerned with any phase of

The relationship of hospitals and the practice

of medicine.

Relationships with and the status of the nurs-

ing profession.

Such other matters as the committee deems important from the standpoint of protecting the public and the medical profession from attempts to bring about inadequate medical care and unwarranted interference by outside agencies with the practice of medicine.

Reference is respectfully made to the report of this long-range special Planning Committee for Medical Policies. (See April 15 issue.)

The Committee met on several occasions with the Public Health and Education Committee in cooperation with the wishes of the chairman, Dr. O. W. H. Mitchell. It entered closely into the study of the Emergency Maternity and Infant Care (E.M.I.C.) Program of the Federal Government and the New

York State Department of Health. It studied the important question of the School Health Program as presented by the Public Health and Education Committee.

The Committee found that especially this year the Workmen's Compensation Bureau has become an important factor in our professional and economic relations with industrial workers in New York State.

The Council Committee on Legislation presented much material that required analysis and study. The attendance of the Executive Officer, Dr. Joseph S. Lawrence, at the meeting was most helpful.

The chairman of the Committee continued contact with the New York State Nursing Council for War Service and has received reports regularly

from this organization.

He also continued as a member of the Atlantic Seaboard Agricultural Workers Health Association. Inc. The purpose of this board, supported by federal funds, is to provide medical care for indigent migratory workers.

The committee received a report from Attorney Thomas H. Clearwater that provided material for study relating to the legal definitions of what con-

stitutes medical care.

During the year the committee studied various proposals relating to the newer developments in the socialization of medicine. The Beveridge Plan of England and the Provincial Health Insurance Act of Canada and the developments in New Zealand were studied in relation to the proposed Wagner-Murray-Dingell bill in the United States.

The subject of Medical Relief has remained under

consideration of the subcommittee:

Ralph T. Todd, M.D. Tarrytown Carlton E. Wertz, M.D. Buffalo Charles F. Rourke, M.D. Schenectady

The Subcommittee reports as follows:

#### REPORT

With the decrease of unemployment in New York State, the Department of Social Welfare has been relieved of many of the perplexing problems which directly or indirectly influence the medical care provided by this Department and rendered by the medical profession. It follows, therefore, that the Committee on Medical Relief has been relatively quiet this past year; however, your Committee has maintained close association with the Department of

Welfare during this period.

At a meeting held in the summer with the Department's representatives the question of payment of medical fees for services rendered to Old Age Assistance clients was discussed. Unfortunately your Committee is unable to report any change in the method of payment of the doctors giving this service; however, we are able to report that the Social Welfare Department informed us of the removal of certain restrictions formerly placed on participating practitioners in the care of welfare patients and in the prescribing of medicine for these clients. It was stated at this time that the removal of these restrictions was made possible by the efficiency of the medical service rendered under the agreement made in 1942 by the Department of Social Welfare of New York and the Medical Society of the State of New York

An informal meeting was held with the newly appointed Commissioner of Social Welfare, Robert T. Iansdale. Many mutual problems were discussed and the future looks hopeful, for greater understanding ing, cooperation, and coordination between government and the medical profession exist today than before.

Your Committee looks forward to greater activity in the coming year and the work should prove to be not only interesting but of great value to the doctors, the citizens, and the State.

#### PART VII

#### Nonprofit Medical Expense Insurance

The main work of the Committee on Public Relations and Economics consisted in the study and support of voluntary prepayment nonprofit medical care insurance plans in New York State. Part of the discussions related to the fact that voluntary prepayment insurance would be one important answer

to the Wagner-Murray-Dingell bill.

The Subcommittee on Nonprofit Medical Expense Insurance continued with the same personnel:

Herbert H. Bauckus, M.D., Chairman...Buffalo Walter T. Dannreuther, M.D.....New York William Hale, M.D......Utica

It also continued an additional subcommittee to study and advise on the subject as it pertains to the metropolitan New York area and the surrounding counties (seventeen in all). This personnel is as follows:

William B. Rawls, M.D., Chairman... New York Walter T. Dannreuther, M.D.... New York Abraham Koplowitz, M.D... Brooklyn Milton J. Goodfriend, M.D.....Bronx

The following is the subcommittee's report.

#### REPORT

The metropolitan Subcommittee busied itself with the voluntary medical care plans of the above area and has met with some success with three New York City plans: Medical Expense Fund, Inc.; Community Care, Inc.; and Plan B of the Kingsley Roberts group. The other voluntary medical care plans in New York State are the Medical and Surgical Care, Inc., of Utica, New York, and the Western New York Medical Plan.

During the year the chairman of the Public Relations and Economics Committee discussed the subject of nonprofit medical expense insurance plans in New York State with His Excellency Gov. Thomas E. Dewey and followed this with the forwarding of the printed material of each New York State plan

to the Executive Office.

A meeting with the New York State Superintendent of Insurance, Mr. Robert E. Dineen, was attended by the chairman and the executive officer, Dr. Joseph S. Lawrence. During the year the Publications Committee sent out considerable helpful material on the subject of Voluntary Medical Care Insurance and this will be augmented by fur-ther important bulletins. Miss Yolande Lyon was added to Mr. Anderson's office staff to assist in this work. Miss Lyon has been spending time in interesting the Woman's Auxiliary of the State Medical Society on the subject of Voluntary Medical Care

Under date of December 9, 1943, the chairman made the following report to the Council:

"Voluntary Nonprofit Medical Indemnity Insurance Plans in New York

"Although these plans have enjoyed but a limited experience in New York State, they have attracted enough support on the part of subscriberpatient and physician to enable us to draw certain important conclusions from them.

"There is a great desire on the part of the public to budget and insure against the costs of medical care. Some of this foresight has been stimulated by the success of hospitalization insurance. This directs attention to the insurance of hospital-confining illness, and thus, logically,

to the surgical care contract.
"The public has a greater interest in the selection of quality medical care than we are inclined to give it credit for. It does not want to take chances with experiments that might interrupt the consistent progress in American medicine. It is satisfied and as a country it is quite proud of these achievements. It does not foresee anything but disadvantage in the entrance of a third party to the patient-physician relationship. It most certainly fears and despises the admixture of politics into medicine—and especially does it abhor political welfare medicine. It wants to be unhampered in the choice of its physicians—it still does not want to give up the vantage of being the employer.

'The philosophy that would burn the bridges of the old stand-by medical services behind us is not considered seriously, and its superficial interest disappears at once when the advent of real sickness prompts the family to send for their doctor. The public unerringly senses that the physician is a human, too, and that competition

does ever so much for initiative.

"But how to save for the cost of the inevitably

needed medical care!

"Better yet, by insurance make the necessary funds available at once and at the same time spread the cost over time and numbers!

"And, more than all this, to impress the individual with the personal responsibility of every one of us to preserve health and life, and to safe-guard against sickness! Without this education, most assuredly, we shall not progress under any

system.
"Are the personal hardships of our pioneering days over? Why, today the youth of our land are out there in the far, far away, battling fiercely with and among the most destructive and deadly machines in the history of mankind! And though they are part of a great combined host they think, and they experience mental and physical woundsand, yes, they die—as individuals.

"Seven to ten cents per day per individual will adequately insure for medical and hospital care

combined!

"A broad surgical contract costs two cents per day

per individual!
"A surgical contract with obstetrics costs one dollar and seventy cents per month for the family! "A liberal medical and surgical contract, with

obstetric care, costs three dollars per month for the entire family!"

A study of the various plans of New York State shows that they are all making progress and growing, but it is quite evident that there are many difficulties which prevent a rapid acceptance of these plans by the public. All insurance apparently requires good salesmanship. Medical care insurance is unquestionably in the experimental development stage and it is, as well, a most difficult problem from the standpoint of securing helpful actuarial data. The problem goes into the field of what we can insure in health and what we can not in a general policy afford to insure. How well is a person who has

no symptoms? And what symptoms, granted even that they be displayed by nervous and neurotic temperaments, can we regard as having no need for medical attention? If we demand signs, then a physical examination is necessary and for this, in the mind of the patient at least, the medical care plan should make payment. Logically, we should make all the use we can of preventive procedures, but since these have to do with practically all people we could not enjoy the advantage of spreading the risk among the many for the benefit of the few. Also, if we put an additional burden on the subscriber-patient for the first few calls in order to discourage unnecessary demands then we are risking our position in advising early medical care. If we attempt to insure only for the serious or catastrophic illness we are not at all fulfilling the public demand and need for coverage of the greatest portion of the population. Again, the apparently minor illness may later become the tragic catastrophe. Really, the possibilities in medical care insurance vary over as wide a field as does the pathology of the human body. Manifestly, there must always be a limit in the coverage of any kind of medical care plan-government-operated or not. And the more one studies the practical workings of the plans the more clearly does this become evident. Unfortunately, many lay groups, including labor organizations, believe that an ideal plan should cover all medical care at a fixed annual premium. It might be possible to do this on a perfunctory basis, but not without serious loss to the high standards of good medical care. It goes without saying that the rank and file of our physicians will not enter into a system for providing the cost of medical care which interferes with or prevents the best in progressive modern medicine.

The question of insuring the lower income groups is of course very important. Some of the plans endeavor to reduce the cost to this group. Admirable as this may be, it brings with it many difficulties and in the end the welfare groups are apt to receive the old familiar welfare medicine. There seems no good reason why social welfare boards should discriminate by purchasing inferior or low cost medical care for those entrusted to their responsibility. It is true that this care could be purchased at a lower rate by including all these patients as a group, and this, together with lack of collection difficulties, should make a low premium rate acceptable to the practicing physician. For the present, it seems that a broad surgical contract with obstetrics, to which may be added liberal medical coverage for an additional premium and which will insure the entire family on a limited indemnity basis, covers the field as well as is possible with our present knowledge. From this, of course, we can improve and make the contracts broader and more liberal from year to year, but we must start with a practical basis both for the patient and the physician. It should be mentioned that the difference between "service" and "indemnity" is that "service" includes all the care demanded or necessary, whereas "indemnity" limits the benefits, as is the case with most of the socalled commercial surgical contracts. The wellknown health and accident insurance contracts usually pay a specified amount for a certain restricted period. Mention should be made here that the unrestricted old-time health and accident policy for permanent disability is no longer sold, because experience has shown that such companies could not continue as a successful financial venture. inclusive unlimited service medical care plans, voluntary or compulsory, fall in this same category.

The Medical Society of the State of New York should do all in its power to make sensible and workable Voluntary Nonprofit Medical Indemnity Insurance Plans available to the residents of its State. In conformity with this idea the Council Committee on Public Relations and Economics of the Medical Society of the State of New York at a meeting February 9, 1944, adopted the following resolution:

"Resolved, that a full-time Director for Medical Indemnity Insurance be appointed for the Medical Society of the State of New York.

The chairman read from his report to the Council as of January 28, 1944, as follows:

"The time is at hand for a realistic approach to a more active sponsorship of our voluntary prepayment plans for medical care insurance. As a state medical society we are committed to the active support of these plans—and the events of the past year demand that these efforts be greatly accelerated and expanded.

"Any worth-while effort will require the expenditure of additional money by the Medical

Society of the State of New York.

"The business of Workmen's Compensation has for some years entailed the budget support of a director and a bureau or division, with the need for greater activity and completeness plainly shown by the latest report of the Committee

"The successful promotion and sponsorship of voluntary prepayment insurance will be a much heavier activity. We need a full-time director in this work to study and directly aid the plans now

operating in our State.

"We should consider the advisability of augmenting the selling and advertising forces of the plans operating in the three areas of the state. This would not cost as much as would the formation of a new state-wide plan, which would have many difficulties aside from newness. The expansion of area plans would soon cover the needs of the entire state.

"We should now finance and support a New York State Medical Society Bureau for Volun-

tary Medical Care Insurance.
"The adoption of these steps would inevitably result in a most favorable public reaction and should win approval from all quarters. We must not overlook the fact that the many lay minds who are with us heart and soul to preserve the scientific advancement of medicine also look to us for constructive leadership in the problems of health economics.

The Council was quite sympathetic to the idea of further Indemnity Insurance Plan expansion and referred the subject to the Planning Committee for Medical Policies. This Committee met on February 10, 1944, and was equally desirous of cooperation in this Medical Care expansion.

It is considering special details looking toward a definite proposal for the House in its report to come

later.

Related to Voluntary Medical Care Plan development is the threat of competition from Blue Cross Hospitalization Plans. The State Committee for Uniform Contract of these plans wishes to include quite generally certain medical services in the hospitalization insurance plan. To this question the Council Committee on Public Relations and Economics has delegated a great deal of its time. Meetings were held with a committee of Blue Cross or Hospitalization Insurance Plans representing the New York State Conference of Blue Cross Plans, and with the Hospital Association of the State of New York.

Under date of August 14, 1943, the following letter was addressed to the president of the Medical Society of each county:

#### 'Dear Doctor:

"At a recent meeting of the Council of the Medical Society of the State of New York, careful consideration was given to the subject of voluntary nonprofit hospital insurance corporations seeking to include anesthesia and x-ray services in the hospitalization contract.
"A report of the Reference Committee of the

June, 1943, House of Delegates of the American Medical Association was read to the Council. The Council of the Medical Society of the State of New York unanimously passed a resolution adopting these principles or resolutions of the American Medical Association as its own policy.

"We accompany this communication with a copy of the above resolutions of the American Medical Association, and ask that this copy be read at the next meeting of your county society.

"I would like to suggest that the subject be made the interest of the various medical hospital staffs of your county. Physicians understand that the services of x-ray and anesthesia are part of the practice of medicine; but there is difficulty in securing the adherence of legal opinion to this belief. The various hospitalization insurance corporations of New York and other states are seeking to bring out a uniform hospitalization contract which may result in much dislocation of home theory and rule in medical care and hospital management.

"The Council Committee on Public Relations and Economics will communicate with you further on the subject. It wishes to emphasize that it is the action of local county societies that will bear the most weight with the hospitalization plan of its community. I shall appreciate your immediate

comments and suggestions.

"Very truly yours,

HERBERT H. BAUCKUS, M.D., Chairman Council Committee on Public Relations and Economics"

This letter was accompanied by excerpts from the report of the House of Delegates of the American Medical Association, as follows:

"1. That the House emphatically reiterate that it disapproves the injecting of a third party into the personal relationship of the patient and the physician, and that hospitals should not be permitted to practice medicine.

"2. That the practice of radiology, pathology, and anesthesiology is the practice of medicine just as much as is the practice of surgery or internal medicine, and that it is only a short step from including the first three in a medical service plan to including the whole field

of medicine in such a plan.

"3. That the public should be educated to realize that the hospital-created monopoly control of radiologic or any service as a source of profit beyond the normal provision for replacement, department development, and proper proportion of over-all costs of operation of the hospital should not be permitted. Nor can the hospital rightfully use per diem charges

against all of the hospital patients to support a radiologic or other department devoted to creating bargains in radiologic or other services in order to make hospital group insurance more attractive. To permit either will result in decrease of the quality of service and increased cost to the patient.

"4. The medical profession must watch with care all proposed plans for medical service and endeavor to prevent the acceptance of any plan which includes medical service under the

control of the hospital.

"5. The effectiveness of this program can be attained only if state and county medical societies use their influence on hospitals in their respective localities and exercise control over the local members of the medical profession.

"6. The public must be educated on what it will mean to them in the way of inferior medical care if these dangerous trends are not curbed.

"7. In the relationships of the medical staff and the board of directors of a hospital there should be no intermediary. The staff should have direct access to the board.

"8. The board of trustees should continue their conferences with national hospital associations and should also endeavor to enlist the support of special medical organizations in education both of the profession and of the

public.

The House of Delegates of the American Medical Association urges the American Hospital Association to withhold approval of the uniform comprehensive Blue Cross contract proposed by the Hospital Service Plan Commission of the American Hospital Service Association, which includes certain medical services as a part of hospital care and which, if adopted as recommended by the said Commission, would virtually compel the addition of medical services to the benefits of those Blue Cross Plans now acceding to the demands of the American Medical Association by confining their benefits to hospital serv-

On December 9, 1943, the chairman of the Public Relations and Economics Committee presented the following report to the Council:

"Hospitalization insurance plans known as the Blue Cross have indicated a desire to broaden the scope of their plans by insuring for certain medical service costs incurred in the hospital. Some of the reasons for this change appear to me as follows:

"1. Increase of their profits and surplus have necessitated or made desirable an increase of benefit distribution.

(The plans are nonprofit.)

"2. Competition of commercial or profit com-

panies.

"3. Business advantages of uniform contracts in the state and national organization of such hospitalization plans.

"4. Greater power of large nation-wide corporations in controlling all these plans.

"5. Desire of hospitalized patients to have all of the hospital bill paid by insurance.

"6. Possibilities in the control of medical services given in hospitals, and of the hospitals themselves. The money furnishing the lifeblood of the hospital, and of the medical service, would come from the Blue Cross.

"Against this encroachment the medical profession of New York State has objected largely on the following basis:

"1. It has not been thought wise, and it is not legal, for a corporation to practice medicine. The public still looks to individual responsibility in the acts of medical practice.

"2. It would deteriorate the standards of medical care in hospitals, leading as well to deteri-

oration of hospital service.

"3. It would reduce the standing of certain important specialties in medicine to the point where the qualifying boards for such specialties would see their work destroyed.

"4. It overlooks the fact that a large and important part of the practice of medicine is outside of the hospital, especially in the prevention of serious disease requiring hospitalization.

"5. It would directly compete with and would

destroy voluntary medical plans.

"6. It is necessary to have both medical care and hospital plans, as neither alone can satisfy the public demand for insurance. Omission of completeness plays directly into the hands of advocates of compulsory sickness insurance.

"7. The Blue Cross plans being older, having amassed satisfactory funds, and having had the help and cooperation of the medical profession from the inception of these plans, may reasonably be expected to assist in the support of the more difficult medical care

plans.
The medical profession does not like the idea of a third party interference in its relations with the hospitals, especially in the case of large state and national organizations which may have little understanding of home rule and option.

"9. It feels that the present addition of a few specialties will lead to the inclusion of more medical services, especially surgery and ob-

stetrics.

"10. It sees many other benefits than the practice of medicine that could be introduced into the hospital plans to give the subscriber greater benefits."

The Public Relations and Economics Committee on February 10, 1944, presented a resolution to the Council which was adopted by that body as follows:

"That the Council of the Medical Society of the State of New York reaffirms its own position and that of the American Medical Association in opposing the inclusion of pathology, radiology, anesthesia, physical therapy, or any other form of the practice of medicine in a voluntary hospitalization or Blue Cross Insurance Plan. It is opposed to hospitals' accepting contracts of this kind, and it proposes that these insurance contracts for medical services be cared for by the voluntary nonprofit medical care plan."

The Council authorized the committee to publicize this information and forthwith copies of the resolution were mailed to the medical societies of each county, to the Hospital Association of New York State, to the New York State Conference on Blue Cross Plans, to the Blue Cross Plans operating in New York State and to the Boards of Trustees and New York State, and to the Boards of Trustees and the medical staffs of the hospitals of the State of New York.

#### PART VIII

#### Legislation

The Council Committee, charged with the duty of studying legislation and putting forth the positions taken by the Society, was continued with the same personnel:

John L. Bauer, M.D., Chairman......Brooklyn Walter W. Mott, M.D......White Plains Leo F. Simpson, M.D.....Rochester

The Committee makes the following report as of March 11, 1944. A supplementary full report will be ready for the House on May 8, 1944.

The Council Committee on Legislation submits

respectfully the following preliminary report.

There have been meetings and conferences in Rochester, Albany, and New York City; also many conferences over the telephone. This year the county legislative chairmen held a conference with the State Legislative Committee in December as well as in February. Both were well attended; thirty-three counties were represented in December and thirty-four counties in February. One returns home from these conferences with a better understanding of the problems involved, with a sense of good will and fellowship and a real pride in his fellow physicians. The contacts with the legislators have been enjoyable and, in many instances, a resulting increased respect and regard has occurred. Our Executive Officer is accepted at full face value; we have been fighting the good fight. We have had worthy opposition which is not always understood by us, especially opposition to us when we are fighting with full knowledge of the benefits to be gained by the people for their especial protection and safety. Political opposition may be generous and of good intent. It may be obnoxious or based on wishful thinking. How true and human it is to on wishful thinking. How true and human it is to credit legislators with honest convictions, when you get better acquainted with them.

Chiropractic and Basic Science Laws.—You recall that the Legislature appointed a committee to study the merits of chiropractic. We rejoiced that now the complete story would be told; all of the facts, true and false, would be brought out. This Committee and false, would be brought out. mittee would read the report of the State Department of Health for 1936, would carefully weigh it, since to date the standards of chiropractic have not been improved. We were certain that the claims of the chiropractors would prove to be fallacious, erroneous allegations, as we know them to be. it was realized that the appointment of a committee to study chiropractic might be a clever ruse to secure, after yearly failures, positive, favorable action for the chiropractors, so that they might become licensed without meeting the standards of the Medical Practice Act and without passing examina-tions in the Basic Sciences. But we still had faith in the sincerity and competence of the committee, even after we were acquainted with its composition. No one doubted that the legislators would feel their responsibility to the people, to the Board of Regents, and to the Department of Education. They could not possibly permit a lowering of the standards of the Medical Practice Act and so allow not welleducated men, men more or less ignorant of the Healing Art, illegal practitioners of the so-called chiropractic, to become licensed. This committee held six hearings. There was representation at five hearings from the Department of Education or from hearings from the Department of Education or from

the Department of Health of the State or of the City of New York, or from the Academy of Medicine of New York City, or of the Podiatry Association or of individual physicians, or of our Executive Officer, Dr. Joseph Lawrence. Abundant testimony was given to prove the case against the chiropractors. Chiropractic—not a science—not taught by any school or college worthy of regulation with the Department of Education—not recognized by the U.S. Army, or by the Navy, or the Marine Corps, or by any real widely accredited authority on pathology or physiology or anatomy or roentgenology, etc.—or by any hospital of standing, accepting any chiropractor on its staff. We were wary of some members of the committee, because of their record, yet we expected the report with recommendations to be given to the Legislature before the introduction

So far, we have seen no report, but a bill has already been introduced into the Assembly by the secretary of this committee and into the Senate by its chairman. These bills recommend licensure and a separate examining board for chiropractic, including what purports to be a "Grandfather's Clause." Do you recall the "Costs of Medical Care" and predetermined conclusions? We are still relying upon the Legislature as a whole. Surely, they must not be so gullible—they must await the full stenotyped report before they will vote for the lowering of the standards which our Medical Practice Act includes and compels-standards which have been advanced over the years, always higher, never lower. They must safeguard their Public. They must not shirk their responsibility. It is easier to believe that they realize their responsibility, and that the bills will be voted down. It would not be surprising to learn that the legislators have recommended, by resolution, the continuance of "equal standards of education and training for all who would practice upon the human body, regardless of what they call themselves."

Dr. George W. Cottis, the then retiring president, avored the appointment of a subcommittee to study the merits of the Basic Science Laws. Dr. Thomas A. McGoldrick, our President, recom-mended the appointment of a subcommittee to study chiropractic, in order to be equipped with full knowledge when testimony would be given at the hearings. The Council appointed Dr. Leo F. Simpson, chairman of the subcommittee on Basic Sciences, and Dr. Ralph T. Todd, chairman on chiropractic. These subcommittees reported to the Council. Dr. Leo F. Simpson in his report emphasized that the educational requirements demanded for licensure to practice medicine or the Healing Art should be met by all candidates. These standards should not be lowered. A Basic Science Law is not needed to curb the activities of the various illegal cultists. A proper enforcement of the law, as it now exists, would be entirely adequate. If a bill for licensing chiropractors, with a separate examining board, were introduced-then only should a Basic Science Law be enacted.

Dr. Ralph Todd, for his subcommittee on chiropractic, reported to the Council that the standards for those who practice medicine should ever reach for higher levels, never for lower ones. All who practice the Healing Art in the State should meet the qualifications as set down in the laws and the regulations of the medical and osteopathic prac-titioners. The American citizen expects, as his right, the best possible preparation and the greatest skill of those practicing the Healing Art. The maintenance of high uniform standards for all medical practitioners is insisted upon.

These reports were approved by the Council.

At the conference held in Albany on February 24, after long debate on both the Basic Science Law and chiropractic, a motion was carried instructing the State Legislative Committee to prepare and offer amendments to the chiropractic bills. This has been done.

Workmen's Compensation.—The report of the Moreland Act Commissioners William F. Bleakley and Herman Stichman, investigating the problems of Workmen's Compensation, has been made, but we have as yet seen only the recommendations of that report as printed by the Legislative Index Company. There will be a hearing on that report on March 13. A number of bills had already been introduced during February and others are appearing—many, no doubt, will be drafted and introduced almost daily—to amend the Workmen's Compensation Act.

Pending Legislation.—The Reregistration bill, calling for registration every two years with a payment of four dollars, has been amended to place initiating responsibility upon the State Department of Education. The unfortunate doctor has discovered too late his failure to register and has been severely penalized.

Tuberculosis is being taken into high gear, and will be dealt a lethal blow, if the present series of bills be passed—of course, additional State tuberculosis hospitals will be erected sooner or later.

The Governor's recommendation of a committee to study welfare progress and medical care will be authorized.

The Long Range Health Commission will be continued.

A most encouraging report has come from the Grievance Committee, suggesting a satisfactory state of affairs—but the powers that be are still for a "Hearing Officer," and a "Hearing Officer" it will probably be. Are there not a thousand cases to act upon as a result of the Workmen's Compensation Investigation, and a Hearing Officer is supposed to

make possible expeditious handling of these cases! We all want a full citizenship bill, and this has been mandated by the House of Delegates. As of February 1, 1944, the Department of Education drafted an amendment to the law, requiring full citizenship of all who would take the examinations for medical licensure. Assemblyman Lawrence agreed to take upon himself the job of sponsorship. The leaders of the Legislature are advising him against such action until next year.

We are possibly the only group opposed to feesplitting, and such things. We have introduced a bill covering fee-splitting, not only in workmen's compensation cases, but also in all branches of prac-

The Wicks Senate Bill on optical dispensing is approved by all of us—no misleading titles, no unlicensed and unqualified persons—no advertising, etc. A good bill, rather optimistic when we think of the illegal practicing of chiropractors—surely the eye is most important, but so is the whole body.

A good x-ray bill is offered and supported by the profession. We understand that the roentgenologists are awake to the needs of their own urgent efforts in support of this bill. The passage of this bill would be a real advance for the welfare of patients.

Other bills will be covered in the supplementary report.

The bulletins issued by our Executive Officer

should be read and referred to as needed. The extra conference of the county legislative chairmen and the State Legislative Committee held this year in December, previous to the session of the Legislature, was a valuable, informative, and influential meeting. We met in the morning, and the secretaries of the county societies who held their conferences the same afternoon, also met with us. Dr. Lawrence reported on the progress of the hearings of the committee of the Legislature on chiropractic. Dr. Louis Bauer interpreted the A.M.A. Council action on Medical Service and Public Relations. Dr. Sullivan informed us as to the present status of licensure of foreign physicians. The Wagner-Murray-Dingell bill was not slighted. Legislative committees' programs, Woman's Auxiliary programs, and a report of the Public Relations Department of the Medical Society of the State of New York by Miss Yolande Lyon, in person, were discussed and well received.

The Legislature is slated to adjourn before March 25. This report! is written on March 12,

#### 'PART IX

#### Workmen's Compensation

The Council Committee on Workmen's Compensation—Dr. Clarence G. Bandler, Chairman, New York; Dr. Joseph C. O'Gorman, Buffalo; Dr. David J. Kaliski, New York (also director of the Workmen's Compensation Bureau of the State Society)—has submitted the following report.

#### REPORT

The Committee on Workmen's Compensation believes that it is time to take stock of the administration of the Workmen's Compensation Law, especially since 1935, when this law was amended to regulate medical practice to provide "more adequate medical care for the injured workman" and to eliminate abuses and evils which existed up to that time. How well has the amended law worked out in the interest of the injured or disabled worker? How effective have been the provisions of the new law in abating evils and abuses known to exist? How satisfactorily have the medical societies carried out their duties and responsibilities?

The Workmen's Compensation Law was enacted primarily to vouchsafe to the workers of the State of New York prompt and good-quality medical and surgical care for injuries and illnesses arising out of and in the course of their employment, and to compensate them for disabilities. The cost of both medical care and compensation, while borne directly by the employer, is actually a charge against the consuming public. Inferior medical care results in prolonged disability, thus increasing the cost of medical care. It may also result in greater functional disability, not only increasing medical and compensation costs but also decreasing the future earning capacity of the worker, especially if he is a skilled worker.

So far as the medical profession is concerned, it has always believed that the same high average quality of medical and surgical care that the private patient receives should be assured to the injured worker. To this end we advocated free choice of physician for the worker and adequate remuneration

for the doctor.

In the past there was a stigma attached to work-men's compensation practice, largely due to competi-

tive compensation clinics, "commercial" doctors, control over medical practice by insurance carriers and employers, and the intrusion of lay-owned clinics and commercial x-ray laboratories in the medical field. Many of the best-qualified physicians hesitated or refused to accept compensation claimants as patients, leaving the field open to many of the less ethical or desirable types of practitioners, who often made compensation medicine a business and were not loathe to adopt unethical methods of the shady businessman to get "business," retain it, and even make a racket of it.

How to abate these evils and introduce into the field of industrial medicine and compensation practice well-qualified and ethical practitioners was the real problem that confronted the profession in 1933, when Governor Lehman appointed the Committee on Workmen's Compensation, on which half of the members of the committee of ten were appointees of the State Medical Society. In order to evaluate present-day conditions as compared with those which existed prior to the 1935 amendments, it is necessary to quote briefly from the report of the Governor's Committee and then to give our opinion as to the adequacy of the present law and the need for further changes in it.

The report of the Committee on Workmen's Compensation appointed by Governor Lehman, of which Dr. Eugene H. Pool was chairman, listed abuses which were subdivided into those over which they believed the medical profession had at the time no control, and those attributable to the medical profession. It was asserted that the Workmen's Compensation Law had not worked to the benefit of the injured workingman and that he often failed to get proper medical care. Racketeering had become notorious. Unscrupulous industrial clinics controlled by laymen or unethical physicians conspired with unscrupulous lawyers, claim representatives, employers, or insurance carriers to obtain compensation cases by rebating and other unethical practices. In order to cover the cost of these rebates, or kickbacks, treatment was needlessly prolonged and medical bills were excessive. The cost of insurance to the honest employer was increased and insurance carriers could not properly estimate the cost of insurance. Previous governmental investigations had also disclosed evidences of abuses on the part of practically all interested parties.

Included among abuses over which the medical profession had no control was the hiring of cheap and incompetent medical service by employers and in-surance carriers and the payment of inordinately low fees for medical service by some carriers, employers, and even the State Insurance Fund. seemed to be the purpose of the insurance carriers and employers to obtain the cheapest possible medical service; even hospital rates were lower than the actual cost of hospitalization in order to obtain business on the part of certain hospitals. Case lifting the control of the control lifting was common where the carrier directly employed physicians or controlled them. Improper medical testimony frequently resulted in erroneous decisions on causal relationship, to the disadvantage of the employee. In other instances conditions totally unrelated to the accident were held compensable. Difficult decisions concerning causal relationship were decided by lay referees without proper legal training and with inadequate medical background and experience, which resulted in unjust decisions. Frequently delays occurred in the hearing of cases and the granting of compensation, to the detriment of the injured workingman. The principal witness against the injured workingman was frequently the physician who treated him and who was paid and controlled by the insurance carrier or employer. The injured workingman was usually in no position to pay for highly skilled, expert medical opinions, while the insurance carriers were in a position to do so; hence the decisions of the referees were often one-sided.

Certain abuses were held to be attributable to the medical profession. It was felt that many serious injuries requiring specialistic care and attention were treated by physicians unqualified for the task. Overtreatment and overcharging were common and prolongation of the period of compensation was frequent. Physical therapy treatment was frequently given without medical supervision and was unnecessarily prolonged, thus adding to the medical cost and occasionally delaying the return of the injured workingman to his job. Physicians were disinclined to appear before referees to render medical testimony because they were not paid to testify and lost considerable time from practice at these hearings. Medical advertising and other forms of racketeering in order to secure patients flourished, especially on the part of the so-called compensation clinics. Rivalry between compensation clinics resulted in case lifting and other unethical practices. Many of the compensation clinics were inadequately staffed and equipped and often were unsanitary. Compensation medical clinics were often lay-owned and staffed by poorly paid and incompetent doctors and nurses. It was alleged that treatment was often rendered by unlicensed persons. These and other abuses had been repeatedly revealed by special committees of the Department of Labor, Bar Associations, Governor Roosevelt's Compensation Committee, and were to a certain extent confirmed by the investigations of the Pool Committee.

As a result of these abuses certain recommendations were made which were designed to regulate medical practice so as to provide more adequate medical and surgical care and to eliminate the evils which existed.

The chief recommendation was free choice of physician by the employee. It was hoped that the principal abuses as they affected the workman's medical case could be abated by granting to him the right to choose a physician, under certain limitations and safeguards designed to assure high quality medical care and to protect the employer and insurance carrier against excessive costs. At the same time, provisions were recommended to permit an employee, of his own free will, to accept the services of an enrolled physician selected and engaged by the employer and recommended by him. It was realized that steps would have to be taken to acquaint the injured employee with his right to choose his own physician or to transfer to one of his own choice. A provision was recommended to enroll all physicians through the county medical societies or their compensation boards. For the first time physicians were required to indicate in their applications to practice the scope of their medical practice based upon experience in medical practice and training. Physicians were bound by law to limit their professional activities to such conditions which, for example, a general practitioner was competent to treat, and, in the case of a specialist, to his special field. No physician was to be authorized without the scrutiny of the Workmen's Compensation Committee or Board before being recommended to the industrial commissioner for enrollment on the panel. Insurance carriers were denied the right to participate in the medical care of the worker. Employers and insurance carriers were, however, given the right to have the claimant examined periodically by competent medical examiners. Provisions were also included to permit an employer or carrier to transfer a patient from an unqualified physician to a qualified one under certain rules and regulations designed to prevent so-called case lifting or improper transfer.

For the first time the county medical societies, through the appointment of compensation committees, were given definite supervisory responsibilities in the enrolling of physicians and over the control of medical practice. The workmen's compensation committees were charged with the duty of investigating charges of professional misconduct. The medical societies were also held responsible for the inspection of compensation medical bureaus operated by physicians or by employers and recommending them for licensure by the industrial commissioner. Thus a great share of the responsibility of maintaining proper standards of professional conduct and professional competency was delegated to the medical profession.

Provisions were made for the promulgation by the industrial commissioner of a minimal medical fee schedule and for the arbitration of disputed medical bills, providing a prompt method of adjudication without the necessity or expense of civil court action. Numerous disputes over medical bills had often led to the withdrawal of high-class physicians from this type of work. Arbitration was an ideal measure to prevent this. Self-insurers were given the right, under certain conditions, to set up in their plants medical bureaus where such were deemed necessary for the welfare of employees, but the employees were vouchsafed the right to free choice re-

gardless of this. The determination of disability devolved upon the referees of the Department of Labor, who frequently rendered decisions upon purely medical matters on their own experience and without the necessity of accepting the medical opinion of the medical examiners of the Department of Labor. While the determination of disability or degree of disability and question of causal relationship remain the duty of the referees or the Industrial Board, provisions were made for the appointment of impartial medical experts nominated by the medical societies and for the setting up of medical advisory or appeal boards to examine and render opinions on medical matters. It was urged that all obscure or difficult questions involving medical facts should be decided by physicians and not by lay persons. Medical advisory boards of three or more members were recommended to be nominated by the medical societies and appointed by the industrial commissioner. It was also the recommendation of the Pool Committee that these boards act upon all appeals referred to them by referees or by either litigant on all medical facts, including causal relationship, determination of disability, and the degree of disability. It was recommended that the decisions of these boards be conclusive upon medical facts.

It was also recommended that since the work of the Industrial Board was to some extent concerned with medical problems, at least one of its members

be a physician.

It was finally recommended by the Pool Committee that punishment be provided for rebating and fee-splitting, and for other unethical practices such as solicitation and advertising.

Recommendations were also made for licensing and inspecting compensation medical bureaus and for the control and care of workmen's compensation

cases in municipal, county, and State hospitals. In view of the free choice principle, it was recommended that physicians be required to notify the employer and the department of labor within forty-eight hours of the beginning of treatment, and within twenty days thereafter a more complete report was to be made.

The Pool Committee recommended that all x-ray laboratories should be owned and operated by qualified physicians. Unfortunately, this recommendation was not enacted into law, permitting the intrusion into the workmen's compensation field of lay-owned commercial x-ray laboratories, with results recently exposed by the Moreland Commission.

The recommendation for the appointment of specially qualified physicians to assist the referees and members of the Industrial Board was enacted into law but the services of such experts were infrequently sought by the referees.

The Pool Committee recommended the setting up of one or more medical advisory or appeal boards for the determination of causal relationship and disability. It was to be the function of these boards of experts in the various specialties to hear all appeals from decisions of the referees involving disability or the degree of disability, the determination of causal relationship, and other questions involving medical treatment. Unfortunately, this recommendation was not enacted into law.

It was also recommended that the county medical societies be reimbursed by the Industrial Commissioner for secretarial expenses incurred in registering and enrolling physicians; for investigation of charges filed against physicians under the new Act; for the inspection of medical burcaus; for the activities of the arbitration bureau; and for the medical advisory and appeal boards set up by the county medical societies in each district, and for other duties necessitated by the Act. Unfortunately, no provisions were ever made for an appropriation to cover these expenditures on the part of the societies, and even in the original appropriation no funds were made available for the inauguration of the provisions of the 1935 Law. In spite of this, the societies carried on at their own expense and largely through the voluntary aid of their members.

It is to be noted here that it was the opinion of the Pool Committee that the duties of the county medical societies in regard to the new Act were confined to the "investigation of charges filed against physicians" and not to the assumption of complete police control over the profession, as has recently

been implied. The amendments to Section 13 of the Workmen's Compensation Law were enacted into law in the spring of 1935 and became effective on July 1, 1935. It was incumbent on the State Medical Society, through its Committee on Workmen's Compensation, to organize the sixty-one county medical societies of the State to carry out the functions of the amended law, to qualify and code all of the physicians who desired to be placed on the panel to treat Methods and standards of compensation cases. qualification had to be devised; workmen's compensation committees were appointed in all of the counties and were instructed in their functions and duties. Application forms had to be devised and printed and distributed. The physicians of the State had to be informed of the provisions of the new Law, of the method of reporting cases, of the limitation on professional services in accordance with their qualifications as general practitioners or specialists. Special qualifying advisory boards had to be set up to meet the rush of thousands of applicants who desired to

practice under the new Law. Your State Committee had to meet with the representatives of insurance carriers, employers' organizations, self-insured employers, and representatives of the Industrial Commissioner, to devise a fee schedule as provided by the new Law, and at the same time as all of the above functions had to be devised and carried out. Indeed, it can be shown that the medical societies were alert and responsive to their duties and responsibilities even long before machinery was set up by the industrial commission of the Department of Labor and before the Governor appointed the new Industrial Council on which five physicians sat to function as advisers to the Commissioner of Labor.

It may be interesting to note that although the fee schedule for the metropolitan area was formulated as late as May, 1936, over a year after the passage of the new Law, and nearly ten months after its going into effect, the efforts of the State Committee to effect its promulgation for the entire State did not actually bear fruit until May, 1938 (two years later). The actual efforts of your Committee to bring about a uniform schedule for the entire State are outlined in a report to the Hous? of Delegates on May 5, 1938, by the Chairman of the new Council Committee on Workmen's Compensation, Dr. Frederic E. Elliott.

To indicate further the alertness of your State Society, during this entire period, though overburdened by the many responsibilities incumbent on the State and county compensation committees, your representatives served as advisers to the industrial commissioner and the Industrial Council in drawing up rules and regulations for medical practice, physician's medical bureaus, employer's medical bureaus, x-ray and clinical laboratories, for arbitration of medical bills, for settlement of disputes on innumerable matters concerning the relationship between the profession and its members, between physicians and insurance carriers and employers, and finally in obtaining or attempting to obtain opinions through the Labor Commissioner, from the Attorney General regarding many moot legal points.

Your Committee was amicus curiae in the case of Szold vs. Outlet Embroidery Outlet Supply Company, Inc., as a result of which the constitutionality of the Workmen's Compensation Law and the delegation of authority to the medical societies was upheld in the Supreme Court and affirmed unanimously

by the Court of Appeals.

One of the chief functions of the Workmen's Compensation Committee of the Medical Society of the State of New York and its Bureau of Workmen's Compensation is to act as liaison between the Department of Labor, insurance carriers, employers, and other interested parties and to coordinate the functions of the sixty-one county medical society compensation committees of the State. Much of our success in fulfilling our obligations under the amended Workmen's Compensation Law of 1935 was due to this coordination and to the uniformity with which the county societies functioned in interpreting the law and the rules and regulations of the Department of Labor and in administering their duties. This coordination was achieved through personal contacts, the issuing of bulletins on important matters (since 1935, fifty-seven state-wide bulletins were issued by the Bureau and some were published in the JOURNAL), by appearances at meetings of local and district branches of county medical societies, and by constant contact with workmen's compensation boards and physicians personally and through correspondence. By these means, some de-

gree of uniformity was achieved, and in spite of the ambiguities and redundancies in the statute a fairly smooth functioning of the agencies set up by the State and county medical societies resulted.

The Workmen's Compensation Committee and its Bureau rendered an annual report to the House of Delegates which was replete with information and detailed discussions of all aspects of the Workmen's Compensation Law involving the medical profession and its various relationships.

Through the above methods the Bureau served as a point of contact of the medical profession for the Department of Labor and its various subsidiary agencies, the more than seventy insurance carriers of the State, self-insured organizations, Compensation Insurance Rating Board, and individual employers and labor unions and other interested persons and agencies. The thousands of letters received annually from county medical societies, physicians, and other persons attest to the value of the bureau as representating the medical profession in the administration of the Workmen's Compensation Law. In particular, the Department of Labor, through the Industrial Commissioner, the Deputy Industrial Commissioners, the Industrial Council, the heads of the Workmen's Compensation Division, the Industrial Board, and the Compensation Medical Registrar have been in constant touch with our Bureau throughout the past nine years, which helped us to fulfill our obligations and attain whatever success it was possible to achieve through such close cooperation. It is perhaps more exact to state that the Society, through its Bureau, sought close cooperation not only to bring about the implementation of the newly amended Section 13 but to clear up the redundancies and ambiguities which inevitably result when a law is amended. A perusal of our Annual Reports to the House of Delegates since 1935 will indicate the interest which the State Society took in the amended law in order to facilitate its administration in the interest of the injured work-

In estimating and summing up, the role played by the Medical Society Compensation Bureau, the county medical society Committees on Workmen's Compensation, the numerous responsibilities devolving upon the compensation committees should be enumerated, even if only in outline. These included the setting up of a minimum fee schedule which is conceded to be a model of such schedules throughout the country, although by no means perfect; the setting up of standards for the qualification of physicians and the registration and enrollment of nearly 20,000 physicians throughout the State, the setting up of standards and application forms for the licensing of physicians' and employers' medical bureaus; the inspection of said bureaus and the recommendation of same to the Industrial Com-missioner for licensure; the periodic reinspection of such bureaus; cooperation with the Compensation Insurance Rating Board, with the Department of Labor, and with the American Arbitration Association in the setting up of the arbitration procedure and the arbitration of medical bills throughout the State; the continued association with the Industrial Commissioner and Industrial Council in the development of rules and regulations to implement the amended Law in 1935 and the continued assistance and cooperation with this State agency up to the present time. In addition to each county medical society, the State Bureau served as a public relations bureau in all matters affecting the medical profession and in particular the relationships between physicians, and with insurance carriers and employers and the Department of Labor and the public. These latter functions, though not susceptible to complete delineation, are of the utmost importance in the administration of the Workmen's Compensation Law so far as the medical profession is concerned.

so far as the medical profession is concerned.

An understanding of these numerous functions and responsibilities which were undertaken by the medical societies voluntarily and without the appropriation of funds, as originally recommended by Dr. Pool's committee to the Legislature in 1933, are an indication of the vital interest of the medical profession in fulfilling their obligations to the public. The Annual Reports of the Bureau will bear out our contention that the interest of the Medical Society in the proper administration of the Workmen's Compensation Law was altruistic and idealistic and not based upon any selfish or materialistic motives. That the organized medical profession was able to enlist the services of so many busy physicians in this vital undertaking in fulfilling their obligations, as well as they have been fulfilled, to the end that the workers of this State are obtaining the highest quality of medical care, should be a source of great satisfaction to the profession and an indication that responsibility may be placed upon the medical profession with confidence.

We believe it is not too much to assert that no other interested parties to the Workmen's Compensation Law, not even the Labor Department, has made a greater contribution to the public welfare than the medical profession through its agencies. Progress in workmen's compensation administration is evolutionary rather than revolutionary. laws are enacted, even if wisely drawn, they must be properly administered by the agency of government responsible for their enforcement. Unless the statutes are drawn carefully and after due thought, they may defeat the purpose for which they are intended. No little confusion has been created and maladministration fostered by ambiguities and redundancies in the original amendments enacted in The medical societies were not unaware of this confusion and frequently sought by all means to obtain amendments to the Law to clarify and simplify the statutes so that they could be more ef-fectively administered and so that the medical societies and medical profession could more effectively carry out their responsibilities. Unfortunately, despite the recommendations of the medical societies, few, if any, amendments of the Law to improve its administration have been enacted since 1935. Annually and again this year we have recommended numerous amendments designed to improve the situation and to control whatever evils and abuses may still exist.

We believe that most of the major evils and abuses which the 1935 amendment was designed to correct have been abated to a great extent, but as we again point out this year, and more particularly since the disclosures of the Moreland Act Commission, there are still situations that require remedial legislation. Along these lines we are appending herewith a report made to the Council by the Committee on Workmen's Compensation which included a number of amendments which in our opinion will help to achieve the desired goal. We wish to emphasize that the basic principles of the 1935 amendments to Section 13 were sound although, unfortunately, in practice, because of factors over which the medical society had little control, the operation of certain phases of the Law has not been flawless.

It cannot be gainsaid that the injured workers

have at their disposal the best qualified practitioners and specialists in the State, as nearly 20,000 physicians have been enrolled by our county medical society committees since 1935. We are bold to state that certain recommendations which were made by the Pool Commission in 1933 and which were not enacted into law would have served in a large measure to control unethical practices recently unearthed by the Moreland Commission, aided by Judge William F. Bleakley and Mr. H. T. Stichman. The proposal that commercial laboratories be banned, although included in the original draft of the bill in 1935, was, through the activity of certain commercial interests, defeated and the way left open for commercialism in compensation practice. Proper medical care and ethical professional conduct cannot flourish in an atmosphere of commercialism. are again urging that laymen and lay-owned x-ray laboratories have no place in medical practice. It is illegal for a corporation to practice medicine and there is no reason why lay-controlled or lay-owned agencies should be permitted to operate in workmen's compensation practice. We must strongly resist all efforts on the part of these sinister groups to intrude themselves into medical practice and contaminate the medical profession.

We must also see to it that the functions of the Department of Labor and its subsidiary departments and the workmen's compensation boards of the medical society are exactly defined to the end that the compensation boards may be enabled to fulfill their function in regard to the discipline of incompetent and unethical practitioners. We must again urge that the Department of Labor be completely reorganized to the end that from the head to the lowest paid employee all shall be embued with a proper understanding of the Workmen's Compensation Law, not only in a legalistic sense but from the point of social responsibility to the injured workers and the public. The Industrial Commissioner and the Industrial Council, the referees, and the medical examiners of the Department of Labor are largely responsible for the way in which the primary purposes of the Law are carried out. There has not poses of the Law are carried out. always been that degree of cooperation with the medical profession on the part of past commissioners of the Department of Labor necessary to achieve the cooperation of the physicians in this State in fulfilling their obligations to the injured workers. Such cooperation is a sine qua non if claimants are to be properly treated and their claims to compensation promptly and equitably adjusted. So, too, the cooperation of employers and insurance carriers with the medical profession is essential to achieve a smooth administration of the law. In the past, insurance carriers, including the State Insurance Fund, have not had the courage or the vision to cooperate with the medical profession in bringing to light evidence of wrongdoing on the part of certain unethical physicians against whom there has been suspicion, although on innumerable occasions they were invited by the medical societies to submit evidence, which they had in their possession, of improper medical conduct. The arbitration procedure was a check upon the payment of improper medical bills, but it cannot be gainsaid that the bills of a number of physicians under suspicion, against whom the carriers and employers "grumbled," were frequently sattled without being reviewed at arhifrequently settled without being reviewed at arbitration. By this means evidence or at least suspicion of improper medical practice might have been dis-closed. There might have been cumulative evidence piled up as a result of the frequent submission of bills

to arbitration of certain practitioners instead of the

settlement of such bills by carriers.

The aid and support of the carriers involved would have enabled the medical societies to take action

and remedy the situation.

Our Workmen's Compensation Bureau has repeatedly recommended the separation of the claims and medical departments of insurance carriers. This same recommendation has been made by other investigating bodies but has not, up to the present time, been adopted by the insurance carriers. This is in the interest of the injured worker and would schieve a more harmonious relationship between the medical profession and the carriers and employ-The petty irritations which result from contact between the lay personnel of insurance carriers and practicing physicians do not make for proper and harmonious relationships, and occasionally redound to the disadvantage of the injured workers. Furthermore, the insurance carriers, self-insurers, and other employers should employ properly qualified physicians and consultants to check up on patients under treatment rather than to commit this important function to physicians occasionally not qualified for the important function they serve. It would seem that from the standpoint of self-interest the insurance carriers would realize that the highest quality of medical personnel would in the long run serve their interests better than the employment of less fully qualified examiners.

Your Council Committee on Workmen's Compensation during the past year reported periodically on matters involving Workmen's Compensation

On June 11, 1943, the Committee rendered an opinion on the right of lay technicians to serve in hospitals as interpreters of x-ray films in the absence of qualified roentgenologists. This position was substantiated by an opinion of the Department of Labor to the effect that only a legally licensed physician qualified in roentgenology could serve in this capacity

Senate Introductory 785 was enacted into law, providing for the treatment of compensation cases in public hospitals where an employer or insurance carrier refuses or neglects to give authorization for hospitalization. The bill was signed by the Gover-

On June 11, 1943, your Committee reported to the Council that Attorney General Nathaniel L. Goldstein had rendered an opinion on May 4, 1943, that the Medical Society Compensation Boards were authorized under the Civil Practice Act, Sections 406 and 358, to subpoena witnesses and to render the oath to witnesses. The same opinion indicated that such authorization is not contained in Section 13-d of the Workman's Compensation Law itself. On the basis of this decision, the medical societies have pro-teeded with the investigations and hearings of physicians charged with violations of Section 13-d of the Workmen's Compensation Law.

The Committee submitted a brief to the Chairman of the Industrial Board protesting a decision of said Board granting 4½ cents on mileage fees under Section 120 of the Workmen's Compensation Law. It was the opinion of the Committee that Section 13-f-2 of the Workmen's Compensation Law should apply, as it worked a great hardship to a physician to drive a long distance to a hearing, spend half a day or all day at the hearing, and then obtain a fee of \$10 plus a mileage fee of 41/2 cents, or, in the case of a specialist ist, a fee of \$25 plus a mileage fee of 41/2 cents. The Industrial Commissioner eventually instructed the

referees that although the mileage fee could not be changed it would be possible for the referee to give consideration to granting a physician a fee in excess of \$10 or \$25 to adequately compensate the physician for the time spent in appearing at the hearing. This

is now the practice.

The Committee protested a decision of the Industrial Board upheld by the Attorney General in 1936 to the effect that unauthorized physicians under the Workmen's Compensation Law would be permitted to participate in examinations before the Department of Labor or to render testimony. The original opinion held that only physicians who treated pa-tients might be authorized by the Industrial Com-missioner. The brief submitted was based on the definition of the practice of medicine as contained in Section 1250 of the Education Law (which indicates that all physicians examining or treating patients are engaging in the practice of medicine) and, therefore, should also be authorized and qualified by the Industrial Commissioner, if they are to be permitted not only to treat patients but to examine compensation claimants and to give testimony. Our protest was necessitated by the fact that a certain physician whose license to practice under the Workmen's Compensation Law had been suspended was acting as an examiner of patients at the Department of Labor. No opinion from the Attorney General on this question has been received.

On September 3, 1944, the Committee rendered an opinion as to the right of an intern or resident employed by a hospital, not licensed in the private practice of medicine, to be authorized to treat compensation claimants coming to the hospital and not assigned to a member of the attending staff of said hospital. It was the opinion of the Committee that such resident or intern, though licensed to practice but not engaged in the private practice of medicine and having an office within the State, was not entitled to be qualified and authorized to treat compensation claimants. A duly constituted physician of the hospital staff should be assigned to treat all compensation cases in hospitals as the physicians of record, even though emergency treatment was given

by an intern or resident.

The Bureau received from the Industrial Commission, after some delay, a list of all employers' medical bureaus in the State for submission to the local county compensation boards for check-up examinations of the bureaus to determine whether they are adequately equipped and provided with medical personnel. This inspection has gone forward in practically all counties of the State.

In accordance with the resolution passed at the last meeting of the House of Delegates, the Chairman of the Industrial Board of the Department of Labor was notified that legislation should be enacted to cover salaried medical personnel in hospitals so that they may be covered for injuries received in the

course of their employment.

A questionnaire letter was sent to all physicians qualified as roentgenologists in this State with the approval of the Council and the President, requesting information on the cost of conducting their of-This questionnaire has been taken very seriously by members of the specialty and the Bureau has compiled adequate statistics to justify the rates charged under the minimum workmen's compensa-tion fee schedule. Indeed, it seems that our request for an increase in the rates is fully justified as a result of the information obtained.

On October 8, 1943, your Committee informed the Council that the various county medical societies were presently engaged in hearing physicians charged by the Moreland Act Commissioners with violations of Section 13 of the Workmen's Compensation Law. Your Director aided in the setting up of these investigations and numerous conferences were held with the Chairman and members of the Workmen's Compensation Committees of the metropolitan area and with the Deputy Industrial Commissioners as well as with the presidents of the various county medical societies.

On December 3, 1943, your Committee recommended that Governor Dewey be called upon to appoint a commission similar to that which was appointed by Governor Lehman in 1933 to study the medical aspects of the Workmen's Compensation Law as they apply to the Amended Law and that appointments be made to said committee from nominations made by the President of the Medical Society of the State of New York. It would be the function of this commission to take into consideration the recommendations of the Moreland Act Commissioners and those made by the Medical Society and by the Department of Labor in an effort to improve the administration of the Workmen's Compensation Law and abate evils and abuses that still exist under the law.

Your Committee was invited to confer with members of the New York State Federation of Labor concerning amendments to the Workmen's Compensation Law contemplated by the Department of Labor. A number of such meetings were held and an agreement was reached on various matters.

Your Committee strongly recommended to the Council that commercial laboratories be banned from the examination of injured workers under the Workmen's Compensation Law. The Committee further called for the adoption and introduction into law of the resolution adopted by the House of Delegates in May, 1943, which called for enactment of Section 1264 and 1265 of the Education Law, making feesplitting, rebating, etc., grounds for revocation or suspension of the general medical license.

On October 29, 1943, at the request of the Acting Industrial Commissioner, we sent a notice to all physicians in the State asking them to apply for dispensation to treat compensation claimants of colleagues in the armed forces so as to permit or divide the fee with them in an equitable manner. It was then decided by the Commissioner that no such dispensation would be necessary, as the Commissioner had changed his views and deemed it proper for a physician to take over the practice of a colleague in the services, render his own bill for treatment, and collect a fee without dispensation. Any proper arrangements between the parties as to the division of the fee would not be considered a violation of Section 13-d of the Workmen's Compensation Law.

It was announced that the Compensation Insurance Rating Board had notified all insurance carriers to the effect that payment will be made for surgical assistance in all hospitals where interns are not available for private and compensation cases except where the fee schedule specifically includes the assistant's fee in the operative fee (hernias).

assistant's fee in the operative fee (hermas). It was announced on February 5, 1944, that the Director of the Bureau was invited to represent the Committee on Workmen's Compensation at the legislative meetings called by the Industrial Commissioner to discuss proposed amendments to the Workmen's Compensation Law to be introduced in the 1944 session of the Legislature. At this time, your Director, on behalf of the Committee and of the Council, submitted the recommendations which

the Workmen's Compensation Committee proposed to the Council and which were adopted at its January meeting. Your Director was requested by the President of the Medical Society, Dr. Thomas A. McGoldrick, to cooperate with the Industrial Commissioner in accordance with the following request received on January 12, 1944:

January 12, 1944

Dr. Thomas A. McGoldrick, President New York State Medical Society 294 Clinton Avenue Brooklyn, N. Y.

Dear Dr. McGoldrick:

You are, undoubtedly, aware of the criticism leveled at the Department of Labor by the Moreland Commissioners investigating the administration of workmen's compensation, because of the type and condition of facilities available in which to make proper and adequate medical examinations.

In the past, the Labor Department has relied upon the local authorities to provide accommodations in which to conduct hearings and physical examinations outside of the cities of New York, Albany, Syracuse, Rochester, and Buffalo; but I am anxious to improve the conditions complained of, and would appreciate the advice and assistance of the State and local county medical societies.

It occurred to me that you might be willing to request the various county societies to appoint committees to look into the matter of adequate hearing and examining facilities in their particular localities, and favor me with a report.

In the hope that this suggestion will receive your favorable consideration, I am attaching hereto a memorandum containing what I believe to be the minimum medical examining facilities that should be available at hearing points away from the office. If you agree that these minimum standards are reasonable, I should like you to submit them to the various county medical societies as a guide. I am also attaching a list of the counties in which compensation hearings are held, and the location of the facilities now available to us.

It is my hope that the committees appointed by the various county societies would visit these places to see if they meet the minimum standards, or can be improved to do so; and also that they would investigate the possibility of obtaining more adequate space and facilities to perform this function in their respective vicinities.

I think I should also inform you that the Moreland Commissioners have suggested the possibility of conducting hearings and physical examinations in hospitals. I should like the local committees to explore this possibility and comment upon it in their reports.

There are certain things which are important for the local committees to keep in mind. Specifically, they are:

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That the point of hearing and the examining room be reasonably accessible by ordinary means of transports.

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3. That facilities be available in which to examine females to care for the increasing number of women who are

injured while working.

I am also listing the names and addresses of the Assistant Industrial Commissioners in charge of the various upstate districts, and think it would be an aid to the local county committees if you would convey this information to

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The committees may wish to visit the locations on a day
when hearings and examinations are being held. If so, such
information, and any other information desired by the committees will be furnished by the Assistant Commissioner upon

I sincerely hope that the medical societies in the State will agree to assist in this matter.

Very truly yours.
MICHAEL J. MURPHY
Deputy Industrial Commissioner

#### Standard Medical Examining Facilities at Hearing Points Away from the Office

- A. What the doctors should have
  - 1. White cost
  - 2. Stethoscope
  - Blood pressure gage
  - 4. Percussion hammer

#### B. Room

- 1. Should be at least 100 feet square
- 3. Proper light, ventilation, and heat
- Should be painted
- 5. Should contain electric plugs
- 6. Accessible
- Anteroom for dressing and undressing
- & Toilet facilities

#### C. Equipment

- 1. Examining table with pad
- Paper sheets
   Washable pillow
- 4. Screen
- At least four good chairs
- 6. Shadow box
- Running hot and cold water and towels
- 8. A female attendant should be available at all times.

It can be stated that the county medical societies are busily engaged in cooperating with the Industrial Commissioner in this matter.

On January 6, 1944, your Committee submitted to the Council a complete report embodying numerous recommendations for amendments to the Workmen's Compensation Law. These are herewith submitted in full as they were adopted by the Council of the Medical Society of the State of New York:

#### Excerpt from Minutes of Meeting of the Council, January 13, 1944]

On motions duly seconded and carried, the Council approved the following recommendations for presentation by President McGoldrick to the Moreland Act Commission:

1. The appointment of highly qualified experienced physicians in the various specialties on a part-time basis to act as medical examiners singly or in boards in all controverted cases, to determine questions of causal relationship, degree of disability, and the necessity of further treatment or of a particular type of treatment.

That each medical examination area of the State be provided with ample and sanitary space and a sufficient number of examiners to make a complete and thorough examina-

tion of every claimant.

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That all claim representatives and all physicians other than the medical examiners of the State Department should be barred from the medical examining rooms of the Department of Labor when medical examinations are in progress.

4. (Third Party Actions) That in order to insure treatment to an injured worker during the pendency of a "third party action" Section 13(c) be amended in keeping with Section 29. The amendment to 13(c) would delete the phrase "unless and until notice of lastice." election to sue or the bringing of suit against such third party."

5. That Section 13-a(3) should be amended to provide a penalty against a physician who is responsible for an improper transfer of a patient from one physician to himself.

That the Law be so amended as to entitle the employer or carrier only to a "consultation representative" at major examinations to protect his interest, but the major procedure should be performed by the patient's own physician or specialist unless the patient waives this right.

That Section 13-j(1) be amended to read "except that it might employ medical inspectors to examine compensation cases periodically in accordance with the provisions

of Section 13-a(4)."

S. That Section 13-a(5) be amended to read that no request for authorization shall be withheld by an employer or carrier unless said employer or carrier has had a medical examination of the claimant in accordance with Section 13-a(4) and has provided the attending physician with the medical facts on which it bases its withholding of authorization.

- That under circumstances where the carrier disputes the doctor's bill (in excess of \$25 for medical or surgical consultation or operations or physiotherapeutic procedures), or refuses to pay it, the matter shall be referred to the Industrial Board for consideration of the issues or to an arbitration committee in accordance with Section 13-g.
- That an employer who maintains a medical bureau without a Department of Labor license should be deemed guilty of a misdemeanor; and Section 13-j(2) should be amended to this effect. (See also Recommendation 21.)
- That Section 24 should be amended to read: "Claims for services or treatment rendered or supplies furnished pursuant to subdivision (b) (out-of-state cases and noninsured employers) shall not be enforceable unless approved by the Industrial Board."
- That the first paragraph of Section 13-d shall be amended to read: "The medical society or board that has recommended the authorization of physicians to render medical care under this chapter shall investigate, hear, and determine all charges of professional or other misconduct by any authorized physician as herein provided, under rules and pro-cedures to be prescribed by the Industrial Council of the Department of Labor and shall report the evidence of such misconduct. with their determination thereon, to the Commissioner. Such medical society or board shall be vested with the right to sub-poena witnesses and records, to issue sub-poena duces tecum, and to administer the oath to all witnesses required in the investigation, hearing, or trial of any physician under this chapter. Such investigation, hearing, or trial shall be conducted by the medical society or board in which the accused physician maintains his principal office or by the board which originally recommended the authorization and qualification of the physician. If the accused physician has removed his office to another county within the State, jurisdiction shall lie with the county in which the physician then practices." practices."
- That Section 13-d 2 should also be amended to provide in Section 13-d 2(c) that the sub-

were presently engaged in hearing physicians charged by the Moreland Act Commissioners with violations of Section 13 of the Workmen's Compensation Law. Your Director aided in the setting up of these investigations and numerous conferences were held with the Chairman and members of the Workmen's Compensation Committees of the metropolitan area and with the Deputy Industrial Commissioners as well as with the presidents of the various county medical societies.

On December 3, 1943, your Committee recommended that Governor Dewey be called upon to appoint a commission similar to that which was appointed by Governor Lehman in 1933 to study the medical aspects of the Workmen's Compensation Law as they apply to the Amended Law and that appointments be made to said committee from nominations made by the President of the Medical Society of the State of New York. It would be the function of this commission to take into consideration the recommendations of the Moreland Act Commissioners and those made by the Medical Society and by the Department of Labor in an effort to improve the administration of the Workmen's Compensation Law and abate evils and abuses that still exist under the law.

Your Committee was invited to confer with members of the New York State Federation of Labor concerning amendments to the Workmen's Compensation Law contemplated by the Department of Labor. A number of such meetings were held and an agreement was reached on various matters.

Your Committee strongly recommended to the Council that commercial laboratories be banned from the examination of injured workers under the Workmen's Compensation Law. The Committee further called for the adoption and introduction into law of the resolution adopted by the House of Delegates in May, 1943, which called for enactment of Section 1264 and 1265 of the Education Law, making feesplitting, rebating, etc., grounds for revocation or suspension of the general medical license.

On October 29, 1943, at the request of the Acting

On October 29, 1943, at the request of the Acting Industrial Commissioner, we sent a notice to all physicians in the State asking them to apply for dispensation to treat compensation claimants of coleagues in the armed forces so as to permit or divide the fee with them in an equitable manner. It was then decided by the Commissioner that no such dispensation would be necessary, as the Commissioner had changed his views and deemed it proper for a physician to take over the practice of a colleague in the services, render his own bill for treatment, and collect a fee without dispensation. Any proper arrangements between the parties as to the division of the fee would not be considered a violation of Section 13-d of the Workmen's Compensation Law.

It was announced that the Compensation Insurance Rating Board had notified all insurance carriers to the effect that payment will be made for surgical assistance in all hospitals where interns are not available for private and compensation cases except where the fee schedule specifically includes the assistant's fee in the operative fee (hernias).

It was announced on February 5, 1944, that the Director of the Bureau was invited to represent the Committee on Workmen's Compensation at the legislative meetings called by the Industrial Commissioner to discuss proposed amendments to the Workmen's Compensation Law to be introduced in the 1944 session of the Legislature. At this time, your Director, on behalf of the Committee and of the Council, submitted the recommendations which

the Workmen's Compensation Committee proposed to the Council and which were adopted at its January meeting. Your Director was requested by the President of the Medical Society, Dr. Thomas A. McGoldrick, to cooperate with the Industrial Commissioner in accordance with the following request received on January 12, 1944:

January 12, 1944

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Dr. Thomas A. McGoldrick, President New York State Medical Society 294 Clinton Avenus Brooklyn, N. Y.

Dear Dr. McGoldrick:

You are, undoubtedly, aware of the criticism leveled at the Department of Labor by the Moreland Commissioners investigating the administration of workmen's compensation, because of the type and condition of facilities available in which to make proper and adequate medical examinations.

In the past, the Labor Department has relied upon the local authorities to provide accommodations in which to conduct hearings and physical examinations outside of the cities of New York, Albany, Syracuse, Rochester, and Buffalo; but I am anxious to improve the conditions complained of, and would appreciate the advice and assistance of the State and local county medical societies.

It occurred to me that you might be willing to request the various county societies to appoint committees to look into the matter of adequate hearing and examining facilities in their particular localities, and favor me with a report.

In the hope that this suggestion will receive your favorable consideration, I am attaching hereto a memorandum containing what I believe to be the minimum medical examining facilities that should be available at hearing points away from the office. If you agree that these minimum standards are reasonable, I should like you to submit them to the various county medical societies as a guide. I am also attaching a list of the counties in which compensation hearings are held, and the location of the facilities now available to us.

It is my hope that the committees appointed by the various county societies would visit these places to see if they meet the minimum standards, or can be improved to do so; and also that they would investigate the possibility of obtaining more adequate space and facilities to perform this function in their respective vicinities.

I think I should also inform you that the Moreland Commissioners have suggested the possibility of conducting hearings and physical examinations in hospitals. I should like the local committees to explore this possibility and comment upon it in their reports.

There are certain things which are important for the local committees to keep in mind. Specifically, they are:

- 1. That the place of examination must be reasonably near the hearing room, so that the injured workers may go from the point of hearing to be examined and return to the hearing room, and the doctor will be available to make his findings known to the referee on the day of the hearing.
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The committees may wish to visit the locations on a day when hearings and examinations are being held. It so, such information, and any other information desired by the committees will be furnished by the Assistant Commissioner upon

request.

I sincerely hope that the medical societies in the State will agree to assist in this matter.

Very truly yours,
MICHAEL J. MURPHY
Deputy Industrial Commissioner

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of the Committee on Workmen's Compensation as a whole was adopted as amended.

Your Committee is still of the opinion that the best interests of the public and of the medical profession require close and constant attention by the State Society to matters involving the medical care of injured workers through a strong and well-implemented Bureau of Workmen's Compensation. Our reasons in detail have been given in previous reports and need not be repeated at this time in the light of the experiences of the past year.

Arbitrations.—During the year 1943, 66 arbitration sessions were held in the metropolitan area and 5 in other parts of the State; 609 cases were arbitrated in the metropolitan area, 35 upstate. In a total of 644 bills, arbitrated awards were given in all but 42. The amount in dispute in the metropolitan area was \$60,605.23 and the awards totaled \$36,428.81. This includes the cases in which no awards were made. In the upstate area the amount in dispute was \$3,345.50 and the amount awarded \$2,435.50. In 347 cases, bills scheduled for arbitration were settled at the time of arbitration without the necessity of a hearing.

Total Physicians Qualified.—To date 20,690 physicians have been qualified and recommended for authorization by the county medical societies' Compensation Boards. The number qualified in each county follows:

Albany, 305; Allegany, 43; Bronx, 2,129; Broome, 223; Cattaraugus, 84; Cayuga, 71; Chautauqua, 116; Chemung, 102; Chenango, 41; Clinton, 49; Columbia, 42; Cortland, 43; Delaware, 53; Dutchess, 160; Erie, 1,046; Essex, 36; Franklin, 67; Fulton, 69; Genesee, 54; Greene, 45; Herkimer, 62; Jefferson, 109; Kings, 3,742; Lewis, 24; Livingston. 56; Madison, 41; Monroe, 565; Montgomery, 64; New York, 5,537; Nassau, 550; Niagara, 179; Oneida, 240; Onondaga, 429; Ontario, 104; Orange, 170; Orleans, 29; Oswego, 77; Otsego, 67; Putnam, 16; Queens, 1,365; Richmond, 140; Rensselser, 137; Rockland, 103; Saratoga, 70; Schenectady, 121; Schoharie, 30; Schuyler, 15; Seneca, 27; Steuben 92; Suffolk, 202; Sullivan, 71; St. Lawrence, 94; Troga, 41; Tompkins, 72; Ulster, 114; Warren, 60; Washington, 51; Wayne, 68; Westchester, 906; Wyoming, 45; and Yates, 27.

The Committee wishes to express its deep appreciation for the loyalty and efficiency of the office staff during the past year. They have worked realously without regard to time limitation in carrying out their duties to the Society during a period when it was often impossible to obtain needed additional clerical assistance. For this the Committee and the Director are deeply grateful and bespeak the approbation of the Society.

#### PART X

## Medical Licensure

In accord with your action of last year there was set up a "Council Committee on Medical Licensure" replacing the Subcommittee on Status of Foreign Physicians, with the same personnel:

F. Leslie Sullivan, M.D., Chairman Scotia Howard Fox, M.D. New York David A. Haller, M.D. Rochester The Committee presents the following report.

#### REPORT

Medical Licensure statistics recently completed for the year 1943 for the State of New York are not

encouraging. There have been effected through collaboration in the State Department certain Rules and Regulations to be discussed later in this report which will in the near future decrease the tremendous number of foreign physicians licensed in the State of New York and stem the tide of influx from other states and countries.

Let us review briefly the 1942 statistics. "In the United States, District of Columbia, and Possessions, in 1942 there were 8,557 licenses issued. 201 less than in 1941 (8,758). In the State of New York, 1,330 licenses were issued as against 1,173 in 1941, or an increase of 157; in California, an increase of 110—740 against 630; in Illinois 72 fewer licenses, 509 in 1942 as against 581 in 1941; Pennsylvania decreased 23—516 as compared with 539." (Last year in the compiling of our statistics, for the purpose of comparison, as you may remember, your Committee used these four states because they annually license more than 500 candidates.)

"New York State, which last year licensed oneseventh of the total number licensed in the United States, District of Columbia, and Possessions, now has reached the all-time high of licensing onesixth of the total. In 1941 this State Licensed 439 foreign physicians; this year the Department licensed 698 with foreign credentials and only 632 graduates of approved schools."

At Buffalo, on May 4, 1942, the House of Delegates of the Medical Society of the State of New York, after a study of the report of your Committee, passed the following resolutions:

"1. We recommend that the House of Delegates of the Medical Society of the State of New York urge the Board of Regents of the State of New York to refuse, in the future, to admit to examination for licensure any graduate of a foreign medical school, 25 or more per cent of whose graduates taking the examination during the past ten years have failed to pass. This percentage is to be based on the average of the results of the individual years.

"2. That the House of Delegates of the Medical Society of the State of New York urge the Board of Regents of the State of New York to limit definitely to three in all the number of examinations that may be taken by any candidate for licensure to practice medicine. Your Committee feels that if a candidate cannot pass these examinations after three attempts, it clearly indicates a medical education of a very inferior quality, and one against which the people of New York State should be adequately protected."

Let us look at the reasons for these recommendations:

First, the New York State Department of Education is now unable to obtain any biographic data or verification of credentials of candidates through foreign schools. Their rule is to accept for candidates any men graduated before the invasion of Austria. We are still generous in this interpretation of the rules. Of the graduates of foreign medical faculties examined in ten years the percentage of failures has ranged from 40.1 per cent to 70.5 per cent. Last year 61.9 per cent from foreign schools failed the New York State Medical Licensing Examination. There are many schools whose graduates habitually fail, but are still permitted to take the examination; and

Second, having once been admitted to examina-

mission of a fraudulent report shall constitute a misdemeanor.

That consideration be given to the inclusion 14. in Section 13-d 2(c) of a clause making the participation in a division, transference, assignment, rebating, splitting, or refunding

of a fee, a misdemeanor. (Payment of Bills) That the following amendment shall be made to Section 13-g:

> "Unless within thirty days after a bill has been rendered to the employer by the physician or hospital which has treated an injured employee such employer shall have notified the Commissioner and such physician or hospital in writing that such employer demands an impartial examination of the fairness of the amount claimed by such physician or hospital for his or its services, the right to such an impartial examination shall be deemed to be waived and the amount claimed by such physician or hospital shall be deemed to be the fair value of the services rendered by him or it, and the Board may make an award to such physician or hospital in the amount claimed by such physician or hospital. A default in the payment of such award may be enforced in the manner provided for the enforcement of compensation awards as set

forth in Section 26 of this chapter.
"The Board may make an award to the physician or hospital for his or its services in accordance with the decision of the arbitration committee as evidenced by a copy of said decision certified by at least three of the members of the arbitration committee and a default in the payment of such award may be enforced in the manner provided for the en-forcement of compensation awards as set forth in Section 26 of this chapter."

(It was understood that the Council was approving a single amendment to cover two situations: (1) A situation in which a carrier does not object to a bill within thirty days after its submission and therefore is not entitled to arbitration; (2) A case that has gone to arbitration but for which the award is not enforced.)

That cognizance be taken of a recent Supreme Court decision holding an employer or carrier liable if he provides medical care, appliances, apparatus, trusses, etc., to an injured employee prior to a hearing before the Department of Labor; and that the giving of such authorization and the consequent providing of medical care or apparatus shall not be construed as evidence of liability on the part of the employer.

(Education Law) That Sections 1264 and 1265 of the Education Law be amended to bring them into harmony with the standards of the Workmen's Compensation Act, Section 13-d(e), which reads: "has participated in the division, transference, assignment, rebating, splitting, or refunding of a fee for medical care under this chapter."

It was understood that the Council was of the opinion that there can be no differentiation between compensation practice and private practice. All patients should be treated alike, and all infractions of the rules of professional conduct and ethics should be

similarly dealt with under the Education La and the Workmen's Compensation Law.)

(Provision for Investigation Through Stat Wide Department) That provision be man for employment by the Department of I al of an adequate staff of investigators heade by a deputy commissioner who is an attoney, to investigate complaints relative to the Workmen's Compensation Law as it applie to physicians, insurance carriers, employer commercial houses dealing in medical sur plies and apparatus, and commercial labor tories of all kinds, if the latter are permitte to operate. This Department of Investiga tion should be state-wide.

(Laboratories) That Section 13-b(3) relatin to laboratories permitted to operate unde the Workmen's Compensation Law should be amended by restoring the word "owned"—to read: "shall be owned, operated, and supervised by qualified physicians."

20. That, if this prohibition against commercia laboratories cannot be included in the Law no laboratory be permitted to operate with out a license under Section 13-c; that they be required to adhere to the principles of Section 13-d(e) and of Section 13-e of the chapter regarding the granting and revoking of licenses. It should be a misdemeanor for any laboratory to provide service under the Workmen's Compensation Law without a license, and the amended law should contain a provision to the effect that no charge for their services if unlicensed, or by anyone employed therein, shall be valid and enforceable under the Workmen's Compensation Law.

(Medical Bureaus) That amendment be made to Section 13-j(2) as follows: "An employer who operates a medical bureau without a license shall be deemed guilty of a misdemeanor and the physician employed in such bureau shall be subject to the provisions of Section 13-d." (See also Recommendation 10).

That provision should be included in the 22. Workmen's Compensation Law and the Labor Law to make the participation of a lay person with a physician in fee splitting, rebating, etc., a misdemeanor punishable by fine or imprisonment.

That it might be advisable for the Depart-23. ment of Labor to make a ruling prohibiting the settlement of medical bills without arbitration, unless approved by the Workmen's. Compensation Board of the county medical society.

The Council considered a suggestion from the Committee that "provision should be made in the regulations of the Department of Labor requiring insurance carriers to notify physicians promptly a if a case is to be controverted as to compensability, so as to enable physicians to determine their that we have a six of the protection of the Workman's status vis-a-vis the patient in re the Workmen's Compensation Law.

On motion duly seconded and carried, this was approved in principle, subject to rephrasing by Dr. Kaliski, and it was understood that in rephrasing it there would be included provision for proper payment for medical care for those injured workers who do not go off duty.

On motion duly seconded and carried, the report 🔄

their lives in defense of our nation surely merit good obstetric and pediatric care. This "shotgun" type of help is not democratic as we understand it. Let the government make the funds available to the patient and give the patient the privilege of being an individual who chooses and makes her own arrangements with her chosen physician. This will maintain a good quality of obstetric and pediatric care. If we insist on direct aid, if that is what is needed, to the patient, without any strings attached, we will set a precedent for extension of government business into private practice.

Last, we shall not commit our doctors overseas and elsewhere to a system of government medicine to come home to, in which they had no voice and

which was not here when they went away.

Recommendations Re Resolutions.—Your Committee, as well as officers of the Society, met in consultation with Dr. Robert Hannon, Secretary of the Board of Medical Examiners at Albany, New York, on October 21, 1943.

A second meeting was held in New York City with the Committee on Licenses of the Board of Re-

gents.

Present were Regt. Roland B. Woodward; Regt. Gordon K. Bell; J. Hillis Miller, Associate Commissioner of Education; Irwin A. Conroe, Assistant Commissioner for Professional Education; Dr. Thomas A. McGoldrick, President of the Medical Society of the State of New York; Dr. Peter Irving, Secretary; Dr. Joseph S. Lawrence, Executive Officer; and Dr. F. Leslie Sullivan, Chairman of Medical Licensure.

A summary of the discussions of both meetings will be given. The Committee referred to herein will mean the Committee on Licenses, and the Society will mean the Medical Society of the State of New York,

Dr. McGoldrick stated clearly the position of the Medical Society of the State of New York, viz.—

"1. We believe that the high medical standards of medical schools of the State of New York

should be maintained;

"2. That, as stated in Section 1256 of the State Education Law, Handbook 9, page 58, New York medical schools and New York medical students shall not be discriminated against by the registration of any school out of the state whose minimum graduation standard is less than that fixed by the status for New York medical schools."

Because of the purported discrimination against New York State medical students and graduates thereof, the House of Delegates has requested certain rules, regulations, and changes in the State Law.

## Resolution No. 1-Failures:

We recommend that the House of Delegates of the Medical Society of the State of New York urge the Board of Regents of the State of New York to refuse, in the future, to admit to examination for licensure any graduate of a foreign medical school, 25 or more per cent of whose graduates taking the examination during the past ten years have failed to pass. This percentage is to be based on the average of the results of the individual years.

Regent Woodward felt that a request of this type was arbitrary only and that it would have no legal standing. He felt that because 25 per cent had failed it did not mean therefore that the other

75 per cent were poor doctors. It was also brought to his attention that necessarily the reverse would not be true, that is, that they would be good doctors. The figures of statistics of high percentage of failures of candidates of foreign faculties as an average was brought to the attention of the committee. That the figure of 25 per cent failures as an average was in reality below the actual figure, which ranged from 31 per cent to 100 per cent as an average for all foreign medical faculties, was pointed out.

It was stated by the Committee that many foreign medical faculties were not recognized. It was called to the attention of the Committee by the Society that in 1942 candidates of 104 out of 154 foreign medical faculties were admitted to examination.

It was pointed out that to recognize these schools the only data that could be available at present concerning candidates from belligerent countries were from credentials presented by the candidates themselves and from information obtained before the

The Society could perceive why there might be a legal issue in refusing admission to the examination of candidates of foreign medical faculties graduating before 1938 when other candidates from the same classes of the same schools had been recognized. However, we did not see how proper inspection of schools could be mantained once the war had started. We were informed that great discretion was used and that all credentials, such as passbooks, statements from registrars of schools, original diplomas and not photostats were studied very carefully.

The Committee decided that graduates from foreign schools who had matriculated in January, 1940, or after, will not be admitted to examination in New York State unless equivalent standards have been determined by an inspector or agent of the Department of Education of the State of New York, and that extraordinary discretion will be used concerning graduates of foreign medical schools of the classes of 1938 and 1939, inclusive. The ruling can be put into effect as of that date, since discussions were started at that time and such a date would

not be retroactive.

#### Resolution No. 2-Number of Examinations:

That the House of Delegates of the Medical Society of the State of New York urge the Board of Regents of the State of New York to limit definitely to three in all the number of examinations that may be taken by any candidate for licensure to practice medicine. Your Committee feels that if a candidate cannot pass these examinations after three attempts, it clearly indicates a medical education of very inferior quality, and one against which the people of the State of New York should be adequately protected.

The Committee also felt that to allow three failures only was arbitrary or open to legal question, but felt that if a candidate had three failures it did show he needed more preparation. The Committee agreed to frame a regulation stating that after three failures the candidate must return for study in the subjects in which he failed before he could take the examinations again. There was no mention of how many times he might retake them after that except to assure that the same process could be repeated.

The question needing clarification is this, viz.—
"A candidate failing in more than one subject in either group, shall be re-examined in the entire

tions, there is no end to the number of times they

may take them.

In Handbook 9 of the Regulations of the University of the State of New York, in the paragraph under "Licensing Examination, Special Requirements," it provides, \* "A candidate may be conditioned in one subject of each group, and may remove these conditions at any other subsequent examination. Any candidate who has written three examinations, except examinations for removal of conditions, and who after the third examination has failures in at least two subjects in either group, shall not be eligible for re-examination for a period of one year." [Note: The asterisk refers to the footnote: "This paragraph has been suspended for the duration of the war."]

In New York State in 1942 there were 562 previous failures licensed out of a total of 813 before all Boards in the United States. Of these 562 let us look at the failures of licentiates from foreign schools:

One hundred and forty-seyen were licensed after one failure in this State, two from elsewhere.

Two hundred and seventy-three were licensed after two or more failures before our Board, two from elsewhere, and

Forty-two here and elsewhere.

Therefore, out of 562 previous failures licensed. 446 were from foreign schools, 33 per cent had failed in New York once previously, and 70-plus per cent had been licensed after two or more failures.

In the computation of United States statistics 60 licentiates had failed five or more times. 13 had five failures before obtaining a license, 19 had six, 10 failed seven examinations, 5 individuals failed eight tests, one failed nine, 2 failed ten, 3 failed eleven, 2 failed twelve, and 2 failed thirteen examinations before being successful. Three graduates of European medical schools were licensed after eighteen, twenty, and twenty-one failures, respectively, in Connecticut, New York, and New Jersey. The majority of these physicians with multiple failures were Massachusetts and New York examinees. Thirteen states licensed in 1942 only physicians who had never failed a state board examination, while New York licensed 562 who had previously failed. With the exception of California, Illinois, Maine, Massachusetts, New Jersey, New York, and Pennsylvania, no state licensed more than 9 such candidates.

The greatest number examined by any one state was 1,263 in New York, of whom 670 passed and 593 (47.05 per cent) failed. No other state examined more than 65 such candidates. Fewer than 5 were more than 65 such candidates. Fewer than 5 were tested by thirteen states and Hawaii. The per-centage of failures of graduates of seventy-seven of the schools was more than 25 per cent. gether, 11,227 graduates of faculties of medicine abroad were examined, of whom 5,991 passed and 42.6 per cent failed. The greatest number, 2,088, was examined in 1940, when 54.7 per cent failed. The number licensed in twelve years increased

from 92 in 1930 to 948 in 1940. In 1942, 58 fewer than in 1940 were registered. The highest percentage of failures occurred in 1941, 59.2 per cent. At no time during this thirteen-year period did fewer than 30.7 per cent fail.

Schools with 25 Per Cent or More Failures in 1942.—Of 154 foreign faculties, 102 were represented in variable figures before licensing boards in the United States in 1942. Eighty faculties and licensing bodies had failures of from 25 to 100 per

cent of the physicians examined. These figures apply only to those examined on the basis of credentials obtained in countries other than the United States and Canada. From 1937 to 1941, of a total of 154 faculties, 145 were represented, with failures, of 108 schools of 25 per cent or more.

The bulk of examinees, 1937-1941, inclusive, came from Germany, with Italy running a distant second. For instance, from twenty-seven faculties represented from Germany, the University of Berlin had 741 in 1937–1941; 852 candidates in all—111 last year, with 49.5 per cent failures; the University of Vienna has had 2,136 candidates—397 last year, 47.3 per cent failures. A few examples from Italy: University of Naples, 1937-1941—209, with 62 per cent failures; University of Rome-335, with 51 per cent failures.

We shall omit discussion of chiropractic licensure and Basic Science Laws in this article because there have been special committees appointed for this particular study and they will no doubt render a re-

port on these matters.

Other Conditions Affecting Our Individual Status. -As pointed out last spring, there have been advances into the ranks of organized medicine by the State and federal governments through changes, some of which Medicine originated, and through many others which we neglected to dispute. Now, unless Organized Medicine, through the American Medical Association and its component state societies, takes the offensive to retain individual rights and private initiative in medicine, it will continue to undergo this insidious revolution, with the result that when the war is over there will be very little semblance left of our original privilege and we will be

completely governmentalized.

Let the Committee give you some thoughts, which will indirectly affect medical licensure:

The acceleration of medical courses as a war emergency is a necessary thing. The fact that the Army and Navy control such programs through the Manpower Commission is significant. The collegiate training programs now being formulated by the Army and Navy also provide for an acceleration of premedical education which may present licensure problems in the future, and legislation may be necessary in order that a physician who has had less than two years of premedical training or less than four courses of eight months each in an approved, registered, or recognized school may be licensed.

A new phase of this is now being considered. The Navy wishes to dispense with qualifying certificates for V-12s in New York State Medical Schools, a requirement which has been in force for over forty

years.
2. The United States Cadet Nurse Corps. These

points are significant:

Acceptance by hospitals and nursing organizations of this federal program.

Being on the federal payroll; and, last, as

quoted from their pamphlet, "At War's end, students in training ninety days prior to the end of hostilities may complete their training at government expense."

Will it stop there?

3. Obstetric and Pediatric Care for Wives and Children of Enlisted Men.—Through increased use of Social Security Act and State Agencies are we to forsake doctor-patient relationships and do business with a third party—the government?
The wives and children of men who have offered

increasing the amounts which they are paying for

their present insurance.

While the policy contract will continue to exclude liability on account of "cosmetic" plastic surgery, the extra premium charged for adding protection on account of that specialty to the policy has been reduced from 50 per cent to 10

(d) The policy contract will also continue to exclude liability on account of x-ray therapy, but the surcharge for including protection for that specialty has been reduced from \$30 to \$15 for minimum limits. Thus, the premium for a minimum policy including x-ray, after April 1, will be

reduced from \$62 to \$45.

(e) In July, 1942, a reduction of 50 per cent was made in insurance rates for members going into service with the armed forces. This was done to encourage service members to retain protection on account of the acts of the doctors left in charge of their civilian practices and also to provide protection for their own professional acts while in the armed services, the need for which had been pointed out by the Judge Advocate General of the Army. Effective April 1, a further reduction to 30 per cent will be made for those members, bringing the cost for a minimum policy down to \$9. At the same time, a provision is being added to those policies limiting liability to suits or claims filed within the continental limits of the United States. This limitation is necessary as neither the Society nor the Yorkshire Indemnity Company have facilities for defending members outside the continental limits of the United States.

(f) Liability for claims arising solely by reason of a doctor's participation in a formal copartnership in the practice of medicine is a business and not a professional liability, and for that reason it has always been excluded in the policy contract. However, since protection is now granted without charge for the acts of an insured medical assistant, it is believed that protection on account of an insured copartner can be included without bur-dening the loss costs of the Group Plan as a whole. Accordingly, policies dated on or after April 1 will include liability on account of the acts of an insured copartner, and the special copartnership policy now required to cover that liability will be

discontinued.

2. In working out the details of the foregoing changes, the Committee was assisted by the Society's Insurance Representative, Colonel Harry F. Wanvig, who returned from a seven months' tour of duty in North Africa on August 1, in time to help bring the negotiations to a satisfactory conclusion. Colonel Wanvig has now returned to North Africa for another short tour of duty at Allied Force Headquarters but, as before, he is keeping in constant contact by air mail and cable with the details of operation of the Group Plan which are being carried on under the competent care of Mr. Gordon P. Casper and Miss Mary G. Flood, both of whom have been associated with the management of the Group Plan from its inception in 1921.

3. Each year the Committee invites attention to the number of malpractice actions brought against uninsured members during the preceding year, and warns that similar suits will arise in the year ahead. In spite of that repeated warning, each year brings a full quota of suits and claims against uninsured members. Based on previous experience, it is correct to state that 12 per cent of the members who will have suits and claims filed against them in 1944

will be uninsured and will have to face the problem of disposing of those actions without the protection of insurance. A policy purchased after a claim has been filed is, of course, not retroactive; therefore, the Committee again recommends that uninsured members give urgent consideration to securing protection in the Group Malpractice Insurance Plan without delay.

The Committee desires to quote the following from its 1941 report because the need for keeping this viewpoint constantly before the members is as important today as it was when published two years

ago:

"As in previous years, it is noted that loose, unwarranted, and frequently thoughtless criticism by fellow members of their confreres continues to be the largest single inspiration for malpractice actions. This is a phase of medical practice which can and should be vigorously attacked in every community. It offers the most effective and perhaps the only way in which unfounded and unjust claims can be discouraged. Medical men are called upon to advise their patients on many matters affecting their welfare. Where that welfare or well-being involves poor results of treatments by other physicians, members should use the greatest care in determining whether those results flowed from negligence or mere errors in judgment or the inevitable complications of life, disease, or injury. It is precisely at that moment that the doctor can perform the greatest service to his patient and to practitioners of medicine as a whole by honest and accurate advice to his patient, making sure that he has all of the facts which entered into and affected the previous treatments."

The Committee feels that special reference should be made to the activities of insurance companies that, from time to time, decide to enter the malpractice insurance business in New York State in competition with the Group Malpractice Insurance Plan. So far these companies have avoided making any proposals to the State Society. No one of them has ever made a constructive offer to the Society or evinced any willingness to underwrite the liability of the members in general. Their method of operation is to select members they believe, for one reason or another, to be preferred risks and to offer them, as individuals, insurance at rates lower than those required by the Group Plan. The effect of this solicitation is to detract support that otherwise would be given to the Group Plan and to create doubt as to its value in the minds of doctors who have had no means of correctly evaluating the offers made to them. No criticism can attach to members who accept those offers because each of them has an unquestioned right to buy his insurance from any insurance company he selects. Nevertheless, it is only fair to those members that they be given an opportunity to know that their encouragement of competing insurance companies could adversely affect the welfare of their fellows in the Society who depend upon the Group Plan for protection. Obviously all of the members will not be classified as "preferred risks" by standards of measurement fixed by insurance companies for the sole purpose of making money. Nor can a member so classified this year be certain that he will be put in the same favored class next year, especially if he has been sued in the meantime. This is precisely why the State Society must maintain a reliable and closely supervised source of protection for all of its members regardless of "classification" and to do so it should have the

group." If this is so then he will have to study the entire group of subjects.

Pursuant to this agreement the Committee submitted to the Society on February 10, 1944, a suggested change in Section 32, Subdivision 2-C, of the Regulations of the Commissioner of Education with respect to the licensing examination for medicine, as quoted below:

"A candidate may be conditioned in one subject of each group and may remove these conditions at any other subsequent examination. Any candidate who has written three examinations, except examinations for the removal of conditions, and who, after the third examination, has failures in at least two subjects in either group, shall not be eligible for re-examination for a period of one year\* from the date of the last examination. Before readmission he shall produce evidence, satisfactory to the Commissioner of Education, of having pursued further study in a medical school or institution acceptable to the department in preparation for such examination. A candidate who has been readmitted to the examination after three failures and submits evidence of satisfactory study of one additional year, and who has failed after writing three additional examinations, or six examinations in all, shall not be eligible for re-examination." (The italicized words are added.)

In order to clarify this ruling, it is the opinion of your Committee that the asterisk and the note con-cerning suspension should be deleted, and that it should also be understood what is meant by an "institution acceptable to the department in prepara-tion for such examination." Otherwise, the change seems reasonable and in keeping with our desire to maintain our medical standards.

Resolution No. 3—Citizenship:

The House recommended that full citizenship be required now for licensure.

The bill is to be framed and submitted to Legislature for change in the law by the State Education Department. The Society was given to understand that no controversial issues would be entertained by the Legislature at this session.

Biennial Registration.—The proposal to register every two years and to pay a four-dollar fee in-stead of a two-dollar fee at registration seems reasonable, in view of the volume of work involved for all professions to be registered. The full directory would be printed in odd-numbered years and a supplement issued in each even-numbered year.

#### Summary

Your Committee feels that progress has been made in clarifying certain licensure requirements.

With the changes in the rulings indicated there will be a gradual, not an abrupt, decrease in the number of candidates of foreign medical faculties admitted to examination.

3. With the change suggested by your Committee on Medical Licensure in Section 32, Subdivision 2-C, there would be a marked decrease in the number of candidates licensed, particularly those of inferior education.

4. Re: Citizenship: The Committee on Licenses

of the Board of Regents was informed of the Recommendation of the House of Delegates. It has given the Board of Regents information as to how the Medical Society of the State of New York stands on the subject and our attitude cannot be referred to as being otherwise.

The Committee on Licenses agrees with our proposal and is drawing up a citizenship bill for sub-

mission to the Legislature.

The Legislative Committee of the Society is likewise prepared to submit a bill or to support the bill of the Department of Education. However, as previously signified, no bill of this nature will be considered at this spring session.

> Respectfully submitted, F. LESLIE SULLIVAN, M.D., Chairman Howard Fox, M.D. DAVID WALLER, M.D.

#### PART XI

## Malpractice Defense and Insurance

The Council Committee on Malpractice Defense and Insurance:

Clarence G. Bandler, M.D., Chairman. New York Peter Irving, M.D., ex officio... New York Kirby Dwight, M.D., ex officio... New York

submitted the following report, which the Council approved.

#### REPORT

A study of the rise and fall of the cost of malpractice protection for members of the Medical Society of the State of New York has led the Committee on Malpractice Defense and Insurance to conclude that high costs are associated with, if not a phenomenon of economic hard times. It is at least certain that the upward trend in these costs which began in 1924 reached its highest point immediately following the low point in the recent depression, while the downward trend which began over a year ago closely follows a return to general prosperity. Other factors, such as the extensive adoption of some new and unsatisfactory professional technic or procedure, might cause a reversal in the present downward trend at any time, but in the absence of such a factor, it would be prudent to anticipate that these costs will certainly climb back to higher levels if any general depression is encountered after the war. In the meantime, the rating machinery of the Group Malpractice Insurance Plan is geared to follow these costs as rapidly as they are confirmed and thus, the Committee is able to announce the following important reductions in insurance costs and other changes which will become effective for all new and renewal policies dated on or after April 1, 1944:

(a) The base premium for a minimum policy of \$5,000/\$15,000 will be reduced from \$32 to \$30.

(b) The percentage table for limits in excess of the minimum is reduced by an average of 10 per cent throughout. Thus, members carrying excess limits will have the benefit of the reduction in the limits will have the benefit of the reduction in the base premium and the percentages charged for higher limits. As in the past, when similar reduc-tions have been made, the Committee points out that after April 1 many members will be able to increase the amount of their insurance without

<sup>\* &</sup>quot;This requirement suspended for duration of war by order of the Commissioner under date of January 7, 1942, which action was ratified and approved by the Regents on January 16, 1942."

#### General Matters

Nominations.—On official request the Council nominated, with alternates, the following, to succeed themselves on expiration of their terms on December 31, 1943: Dr. Moses Keschner of New York, as a member of the Committee on Grievances of the State Department of Education; and Dr. Peter Irving of New York, as a member of the Nurse Advisory Council of the Department of Education.

In accord with previous action of the House of Delegates, the Council nominated to succeed themselves, on expiration of their terms of office as Directors of the Physicians' Home, the following physicians: Dr. W. Travers Gibb, Dr. Peter Irving, Dr. Silas W. Hallock, Dr. Alfred M. Hellman, Dr. Joseph S. Lawrence, Dr. Elies S. L'Esperance, Dr. Harvey B. Matthews, Dr. Seth Milliken, and Dr. Robert Emmet Walsh.

Committee on Office Administration and Policies.—This special committee of the Society has continued with the same personnel: Trustee, Dr. George W. Kosmak, Chairman; General Manager, Dr. Peter Irving; Literary Editor of the JOURNAL, Dr. Laurance D. Redway; Business Manager of the JOURNAL, Mr. Dwight Anderson; Treasurer, Dr. Kirby Dwight. It has met regularly at the same times as the Committee on Publication and therefore participated in the discussions pertaining to affiliated questions dealing with JOURNAL policies and business matters.

The main work of the Committee has concerned clerical salary adjustments. Some of these came up in the ordinary course of events, such as proof by clerks employed on trial of competency for permanent employment; others that were worked out followed individual conferences with the executives that showed that the workers were all experiencing or anticipating difficulties in "making ends meet," in the face of withholding for victory taxes and fed-

eral income taxes.

It was found wise to consult with the auditor, J. K. Lasser and Company, on proper procedure under the stabilization law. With this help, satisfactory readjustments were effected in keeping with that law.

The Committee recommended and the Council authorized the taking out of medical expense insurance in the Medical Expense Fund of New York, Inc., for the personnel of the office, full premiums to be paid by the Medical Society of the State of

New York.

Effect of Redistricting of New York State on the 1944 House of Delegates of the Medical Society of the State of New York.—After the courts in the end of 1943 decided that the law enacted by the 1943 Legislature should stand, in which changes were made here and there in the number of assembly districts, it became obvious that under the Constitution and Bylaws of the Medical Society of the State of New York changes in the number of delegates to the House from several county medical societies would logically be in order, but immediately the question arose as to whether such changes would affect the 1944 House of Delegates. The Council directed the attorney of the Society to look into this situation. This was done, and due attention was given to an opinion rendered by the Attorney General No. 10 opinion rendered b eral, Nathaniel L. Goldstein, on a somewhat similar situation with relation to national party conventions. As a result of these studies, the Council went on record "to the effect that it is the opinion of the Council, based on legal interpretation, that the 1944 House of Delegates will assemble on the old basis of representation." This was made the subject of a memorandum to the secretaries of the component county medical societies under date of December 29,

1943.

Selection of Additional (Twentieth) Delegate to 1944 House of Delegates of the American Medical Association.—At the 1943 meeting of the House of Delegates of the American Medical Association the delegation from the Medical Society of the State of New York was increased from nineteen delegates to twenty. On November 18, 1943, a request was received from the secretary of the American Medical Association for lists of the New York delegation to sit in the 1944 meeting of the House of Delegates of the American Medical Association. The Council, being apprised of this request and being aware that the half of the delegation elected by our 1943 House contained only nine delegates, considered that it should act under Chapter IV, Section 6, of the By-laws, which reads: "The Council shall have power to fill any vacancy which may occur in any elective office not otherwise provided for, until the next meeting of the House of Delegates." This action was deemed wiser than leaving the selection of the tenth delegate to the 1944 House of Delegates of the Medical Society of the State of New York, to be held only a short time before the 1944 meeting of the House of Delegates of the American Medical Association. The Council, therefore, at its meeting on January 13, 1944, filled this vacancy by electing the first alternate, Dr. William Hale, of Utica, to become the new tenth delegate on that half of the delegation.

Communication from the American Medical Women's Association, Inc., Under Date of June 23, 1943.—The Council received and placed on file the following letter from the American Medical Women's

Association, Inc.:

Dr. Peter Irving Medical Society of the State of New York

At the Board Meeting of the American Medical Women's Association held in Chicago June 5-6, 1943, great satisfaction was expressed that commissions and equal recognition of women in the armed forces has finally become an accomplished fact, thus removing the obstacle in the way of women physicians performing the highest patriotic service in their power in this crisis.

This Association, by unanimous vote, authorized me, as the secretary at that time, to express to you our appreciation for the unanimous support given by the House of Delegates of the Medical Society of the State of New York, not once but several times, and for the great privilege of being allowed to present our case in a series of letters published in the State

JOURNAL.

It gives me pleasure to thank you, in behalf of the Association, for this support of our cause.

Yours sincerely, Mabel E. Gardner, M.D.

Belated Bills.—The Council recommends payment of the following bills for expenses in connection with State Society duties which were not turned in until after expiration of the statutory thirty days and possible extension for ninety days more: bill from Dr. J. G. Fred Hiss, in his capacity as a member of a Subcommittee of the Council Committee on Public Health and Education, as a member of the Committee on Convention for the 1943 Annual Meeting, as a lecturer in the postgraduate courses and at the annual Secretaries' Conference, bills for travel expenses and miscellaneous covering the period from July, 1942, through the Annual Meeting in May, 1943, totaling \$198.50; bill from Dr. Emily D. Barringer covering railroad fare to Atlantic City to attend the A.M.A. House of Delegates as a New York State Delegate, June, 1942, in the amount of \$9.00.

unwavering support of every member who requires

malpractice insurance.

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The Group Insurance Plan was conceived and organized by the State Society to meet the pressing needs of its members at a time, twenty-three years ago, when the insurance companies, upon whom they had relied for their protection, were either retiring from the business or raising their rates to prohibitive levels because of the heavy losses they had sustained. This group method of solving a difficult problem was unique because never before had an insurer and an assured pooled their separate facilities for their mutual assistance; and time has abundantly demonstrated that this is the only method by which malpractice insurance can be successfully conducted in this State. Since malpractice defense, which is an unquestioned function of the State Society, is one of the principal parts of the Group Insurance Plan, the latter became and, of necessity, has remained a function of the State Society, no part of which could be delegated to the county societies. The right to malpractice defense by the Legal Counsel of the State Society and the right to insurance in the Group Malpractice Insurance Plan are inherent in membership in the State Society, and the right of an individual, as such, to buy his insurance from any company he selects is inherent in the individual and no action by a component county society can add to or detract from those rights. Therefore, any attempt on the part of a county society to further the interests of a competing insurance company by publishing in its bulletin as advertising matter or as editorial comment, the approval or recommendation of such a company by the county society or one of its official committees, can only be regarded as an attempt to draw away from the support of the State Society's Group Plan members who might otherwise prefer to retain their insurance in it. This is direct competition tending to nullify an important, necessary, and well-established activity of the State Society upon which a large majority of the members must rely for protec-

tion. Not only is independent and competing action by a component insupportable in any federation, but, in the case of malpractice insurance in New York State, such an activity on the part of a county society would be tantamount to advocating a return to the chaotic conditions which forced the organiza-

tion of the Group Plan originally.

The Committee would be remiss if it did not express its appreciation for the splendid cooperation it has had from Mr. A. O. Robinson, the managing vice-president of the Yorkshire Indemnity Company, and his staff. These gentlemen have not only met every requirement of the Society and its insurance representative but have labored diligently to understand the problems of the Society to the end that they may make themselves and their company more useful to the members. The Committee feels that the Society is fortunate in having men of their character and ability associated with it in the operation of the Group Malpractice Insurance Plan.

#### PART XII

## War Participation

The Council transmits the following report of its Committee on War Participation, which has the following personnel:

Louis H. Bauer, M.D., Chairman. Norman S. Moore, M.D	Hempstead
James F. Rooney, M.D Henry W. Cave, M.D	Albany
Samuel J. Kopetzky, M.D	

#### REPORT

The War Participation Committee has had a large amount of routine work carried on chiefly by the Secretary's office. This has pertained largely to obtaining physicians for induction centers throughout the State.

Requests are received from the Second Service Command, are cleared with county societies, and, in the case of State hospitals, with the hospitals concerned, and report is made back to the Second

Service Command.

Up to the present the following numbers of physicians have been recommended to the various induction boards: Albany, 10; Binghamton, 6; Buffalo, 9; Rochester, 13; Syracuse, 17; Utica, 4; New York City (Grand Central Palace), 150; total, 209.

At the present rate of requests about fifty to one hundred more will be recommended by April 1. Nine physicians were not recommended because they were not considered available by their local institu-

tions or societies.

With the call shortly after the last Society meeting for 6,000 additional physicians from all over the United States your Committee recommended to the National Procurement and Assignment Service that all physicians previously physically disqualified be reassessed as to their present availability. county societies were asked to reassess the present availability of these men.

It was also suggested to the National Procurement and Assignment Service that the use of alien physicians might well be made in giving medical

care to prisoners of war.

The Chairman of National Procurement and Assignment replied that the first of these recommendations was being carried out and that the other had been taken up with the Surgeon General of the Army.

The number of physicians from New York State who have gone into the services is at least 9,300, as

well as can be ascertained.

The majority of physicians entering the Service in the future will be from the recently graduated group.

The State Procurement and Assignment Committee has relocated one hundred and thirty-seven physicians in New York State, besides furnishing several replacements in industrial medical setups.

It is recommended that county societies make plans for re-establishing discharged physicians in their former practices and for giving physicians who have not previously been in practice necessary postgraduate instruction and placing them in areas where they are needed. The latter will call for the cooperation of the State Medical Society and the American Medical Association Planning Committee. It is recommended that the War Participation Committee be designated as the coordinating agency in this program.

The House last year called for a survey of alien physicians and an effort was made to determine how many of them would be willing to return to their former homes in connection with the rehabilitation This was discussed with the Committee on Medical Licensure but no feasible way has been found to make this survey, as there is no list of such

physicians.

serves as a collecting agency for physicians of the Society without cost to the physicians; the Bureau coordinates Workmen's Compensation in relation to the component county socie-"The Director of the Bureau attends all ar-

bitrations throughout the State.

"The Bureau maintains contact with the seventy insurance carriers operating under the amended Compensation Law, serves as a clearing house in arbitration matters for the carners and the Labor Department; maintains active contact with the self-insurer organization; it also is concerned with the quality and type of legislation affecting Workmen's Compensation.

"The Director has been instrumental in obtaining uniform fee schedules for the entire State against the active opposition of in-

surance companies and employers.
"The result of this has been an excess of over \$1,000,000 a year for upstate physicians,

"Whereas, the multifarious duties of this Bureau, and the obligation recently imposed for

investigation; and
"Whereas, it is contrary to the best interests
of the State Society, and the component medical
societies, to have such onerous duties discharged

by a part-time director; be it
"Resolved, that the Director of the Bureau of
Workmen's Compensation shall be a member of the Medical Society of the State of New York on a full-time basis and, when appointed, in no way engaged in private medical practice; be it further "Resolved, that the Medical Society shall ap-

point such full-time director on a contract basis for a minimum period of five (5) years; be it

further

"Resolved, that the Board of Trustees determine the annual remuneration to such individual in keeping with the responsibility of the position and the administrative capacity of the individual. It is suggested that a remuneration of \$15,000 a year is adequate and would meet the present living conditions.

The Council at its September, 1943, meeting followed this instruction, selecting Dr. David J. Kalisk as full-time Director of the Workmen's Compensation Bureau of the State Medical Society and sent his property of the State Medical Society and sent his prop his name to the Board of Trustees for arrangement of

The Board of Trustees in October, 1943, submitted a contract to Dr. Kaliski, which he held under consideration until December, 1943, when he declined it. Since that time the matter has been under further consideration by the Board of Trustees, who will make a supplementary report thereon to the

Medical Relief, Direct Payment of Medical Fees (Section 59).—The House adopted the following resolution:

Be it resolved that the House of Delegates of the Medical Society of the State of New York go on record as favoring such change in the Federal Social Security Law as is necessary that will permit direct payment to the physician, and further recommends that the delegates to the A.M.A. be instructed to introduce a resolution requesting the A.M.A. to memorialize the proper authorities for such changes that are necessary in the Federal

Social Security Law to allow direct payment to the physician.

A resolution embracing this stand was presented to the 1943 A.M.A. House of Delegates but was defeated.

Basic Science Law (Section 61).-The House recommended that the question of a Basic Science Law in New York State be referred to the new subcommittee of the Committee on Legislation for study; and that they should consult with the committee of the State Legislature on the chiropractic (See Report of Committee on Legislation, problem. Part VIII.)

Amendment to Workmen's Compensation Law to Cover Paid Hospital Physicians (Section 70) .-The House referred the following to the Council Committee on Workmen's Compensation for consideration:

"WHEREAS, physicians under salary employed by hospitals or other institutions allied to the practice of medicine are exposed to certain special hazards incident to their employment, in addition to the ordinary hazards common to all individuals

employed by these institutions; and "Whereas, such physicians (with the exception of interns) are not included as beneficiaries under the Workmen's Compensation Law; and

"Whereas, disability resulting from injury or illness sustained as a result and in the course of such employment may markedly diminish or entirely dissipate the earning power of such physicians; be it hereby

"Resolved, that the Medical Society of the State of New York initiate measures, through appropriate channels, to cause the Workmen's Compensation Law to be so amended as to provide for the inclusion of the class of physicians above described as beneficiaries under that Law."

The Director of the State Society Workmen's Compensation Bureau advised the Chairman of the Industrial Board of the Department of Labor that legislation be enacted covering salaried medical personnel of hospitals under the provisions of the Workmen's Compensation Law, and an answer was received advising him that this communication had been referred to the Commissioner of Labor.

U. S. Cabinet Secretary of Health (Section 71)-The House adopted the following resolution:

"Whereas, the forward march of civilization depends on the world's health; and

"WHEREAS, the health of the people of the United States is the concern of all the people; and

"Whereas, coordination of all agencies working for the maintenance of health and the prevention and cure of disease is becoming increasingly important in our daily lives; and "WHEREAS, the problems of medical care could

best be coordinated and correlated under the

guidance of a central agency; be it

"Resolved, that the American Medical Association urge with all the power at its command that a cabinet Secretary of Health be established, at the head of which there shall be a physician, a member of a county medical society.'

The following abbreviated resolution was introduced in the 1943 House of Delegates of the

A.M.A. and adopted:

"WHEREAS, coordination of all agencies working for the maintenance of health and the pre-

# Résume of Instructions of the 1943 House of Delegates and Actions Thereon of Council, Trustees, and Officers

There follows a summary (of "index" type) of the different instructions issued by the House at its meeting on May 3 and 4, 1943. The significant portions alone of the different resolutions are quoted.

The term "section" with a number following each heading refers to the minutes of the 1948 House published in the June 15 and July 1, 1943, issues of the New York State Journal of Medicine.

In each instance the action on the instruction is indicated.

School Health (Section 51).—The House adopted the Reference Committee's report containing the following paragraph:

"Your reference committee further recommends that in every community where physicians are appointed by school authorities to examine school and high school students that the county society invite the proper authorities to select the appointees from panels of physicians submitted by the county society."

Attention of the county societies was called to this in the Report of Proceedings of the Council distributed in August, 1943.

Publication of Directory in 1944 (Section 52).—The House approved nonpublication of the Medical Directory of New York, New Jersey, and Connecticut in 1943 but felt "that if conditions at all warrant publication of a 1944 Directory, this should be undertaken, and, furthermore, that all physicians in the military services should have an adequate listing of their contributions to the armed forces of the nation. Such a new Directory would be a sustainer of morale and would also be of much practical value."

The Publication Committee gave extended and detailed attention to the possibility of publication of a 1944 Directory with special attention to a supplement. The Council postponed publication of Directory or supplement on account of practical difficulties and probable unsatisfactory results.

Moreland Act Investigation (Section 56).—The House adopted the following resolution:

"Whereas, charges made against certain physicians in connection with the Moreland Act Investigation of the medical aspects of the Workmen's Compensation Law, if subsequently substantiated and proved by trial, would convict these physicians of acts which are clearly unethical; and

cians of acts which are clearly unethical; and
"Whereas, the prominent notice given these
charges in the press may have led a portion of the
public to infer that such actions are condoned or
tolerated by the profession; therefore be it

"Resolved, by the House of Delegates of the Medical Society of the State of New York that all unethical activities in connection with the provision of medical service under the Workmen's Compensation Law are hereby unreservedly conditions and be it further."

demned and repudiated; and be it further "Resolved, that the Medical Society of the State of New York urges its component county societies to take prompt and uncompromising action to the full extent of their disciplinary powers whenever a member is proved to be guilty of the alleged unethical practice."

The Council sent a special memorandum on this matter to the county societies on September 9, 1943.

Amendment to Medical Practice Act (Section 57).—The House adopted a resolution for amendment to the Medical Practice Act, Section 1264, "Revocation of certificates; annulment of registrations."

"2. The license or registration of a practitioner of medicine may be revoked, suspended, or annulled or such practitioner reprimanded or disciplined in accordance with the provisions and procedure of this article upon decision after due hearing in any of the following cases: (a) fraud and deceit, (b) conviction of crime or misdemeanor, (c) addict or drunkard, (d) untrue advertising and secret remedies, and (e) abortion," and this is the suggested new matter:

"(f) Any physician participating in the division, transference, assignment, rebating, splitting, or refunding of his fee for medical care."

"Recommendation: Approved with the recommendation that the resolution be referred to the Committee on Legislation, who shall determine, after conference with the Counsel of the State Society, any changes in the wording of the suggested amendment which will not conflict with the spirit of the amendment. The Legislative Committee shall determine the opportune time for introducing the legislation."

The Committee on Legislation still has this under consideration as to the "opportune time."

Appointment of Full-Time Director of Workmen's Compensation Bureau of State Medical Society (Section 58).

"WHEREAS, the amendment to the Workmen's Compensation Law in 1935 delegated specific functions to the Medical Society of the State of New York; and

"WHEREAS, it has been alleged through the public press that certain physicians have participated in practices contrary to the ethical principles of the Society; and

"WHEREAS, it is mandatory upon the Medical Society of the State of New York to investigate

and try such alleged conditions; and
"Whereas, there has been set up a Director of
the Bureau of Workmen's Compensation activities by the Medical Society of the State of New
York in conjunction with the component societies;

"Whereas, this Bureau embraces all activities, duties, and responsibilities under the amendment to the Workmen's Compensation Law of 1935:

"These duties and activities include qualifications of physicians, licensing of x-ray laboratories, and medical bureaus operated by physicians and employees; they include hearings and trials and charges of violations of any of the provisions of the law, as well as investigation and follow-up of complaints; the Bureau

Delegates; would enafile county societies having legislative problems to bring them in advance of the meeting of the Legislature to the attention of the other counties and of the State Committee; would enable the State Committee to inform county committees of the prospects of the forthcoming Legislative Session, and, in general, would prepare the county committees for more effective cooperation with the State Committee in its work; therefore, be it

"Resolved, that this House of Delegates advise the Council that it favors the holding of such an additional legislative conference with the chairmen of county society legislative committees shortly before the opening of the regular session of the State Legislature, for the purposes enumerated above, and to the end that the coordinated legislative activities of the county and State societies may be more purposeful and effective than they can be under present procedures."

With approval of the Council, an extra conference of County Legislative Chairmen was held, on the same day as the conference of County Society Secretaries-December 7, 1943.

County Health Units (Section 82) .- The House suggested that the Council Committee on Public Health and Education take up the matter of full-time county public health units "for further study and appropriate action when trained personnel for the establishment of such units becomes available."

This matter was referred to the Council Commit-

tee on Public Health and Education.

Workmen's Compensation Law (Section 84).-The House recommended reference to the Committee on Legislation of consideration of present inadequacies of the Workmen's Compensation Law, and the "addition of such amendments as will strengthen it." (See Council Report, Part IX.)

Status of Foreign Physicians (Section 86).— The House adopted the following recommendations:

"1. We recommend that the House of Delegates of the Medical Society of the State of New York urge the Board of Regents of the State of New York to refuse, in the future, to admit to examination for licensure any graduate of a foreign medical school, 25 or more per cent of whose graduates taking the examination during the past ten years have failed to pass. This percentage is to be based on the average of the results of the individual years.

That the House of Delegates of the Medical Society of the State of New York urge the Board of Regents of the State of New York to limit definitely to three in all the number of examinations that may be taken by any candidate . for licensure to practice medicine. Your committee feels that if a candidate cannot pass these examinations after three attempts, it clearly indicates a medical education of a very inferior quality, and one against which the people of

New York State should be adequately protected.
"3. We recommend the appointment of a continuing committee by the President to be known as the 'Committee on Medical Licensure,' whose duties shall be to compile, study, and assay such pertinent data as may be of assistance to the Board of Regents to the end that the people of the State of New York be guaranteed physicians of the highest quality on whom they can rely with full

confidence."

The Council directed that the present Committee To Study Present and Future Status of Foreign Physicians be renamed "Committee on Medical Licensure." (See Council Report, Part X.)

Blood and Plasma Exchange Bank (Section 91).--The House adopted the following resolution:

"Resolved, that the Medical Society of the State of New York sponsor the extension of the activities of blood and plasma exchange banks throughout the State, with the view toward assisting and encouraging blood and plasma exchange banks to extend to the sick throughout the State, and even to our remotest communities, the benefits they

are now rendering; and further be it "Resolved, that the Medical Society of the State of New York refer this matter to a Council Committee or a Special Committee on Blood Transfusion to accomplish these aims."

The Council authorized the President to appoint a subcommittee of the Committee on Public Health and Education, to be known as the "Subcommittee on Blood and Plasma Exchange Banks." It was understood that this subcommittee would consist of three members, with two ex officio members, in addition, from government agencies. (See Council Report, Part IV.)

> Respectfully submitted, PETER ITVING, M.D., Secretary

## Report of the Counsel

To the House of Delegates; Gentlemen:

Your Counsel herewith submits his report of the activities of the Legal Department of the Medical Society of the State of New York for the period from February 1, 1943, up to and including January 31,

Your present Counsel did not take office until April 19, 1943, but this report covers, in addition to his own activities, the period of two and a half months during which time his predecessor, the late Lorenz J. Brosnan, was serving as counsel to your Society. Society. His many years of service to your Society were terminated by his sad and untimely death on April 12 1000 by his sad and untimely death of April 12 1000 by his sad and untimely death of April 12 1000 by his sad and untimely death of April 12 1000 by his sad and untimely death of April 12 1000 by his sad and untimely death of April 12 1000 by his sad and untimely death of the same April 13, 1943, following a brief period of acute illness, and on April 19, 1943, your Counsel was then appointed in his place and stead.

Mr. Brosnan had served as General Counsel for the Medical Society of the State of New York for a period of over thirteen years. During his tenure of office he had the respect, affection, and cooperation of all with whom he came in contact. His death came as a shock and as a deep personal loss to his many friends among the medical and legal professions and to his associates in the practice of law.

Your present Counsel has been identified with the work of your Society since 1928 and, hence, has been for years fully familiar with every phase of the activities of the office of General Counsel, and during the tenure of office of his predecessors, Lorenz J. Brosnan vention and cure of disease is becoming increasingly important in our daily lives; and

"WHEREAS, the problems of medical care could best be coordinated and correlated under the guidance of a central agency; be it

"Resolved, that the American Medical Association urge with all the power at its command that a Federal Department of Health be created; to be headed by a Secretary of Health who shall be a properly qualified Doctor of Medicine who is a member of a county medical society.'

World Food Conference (Section 72).—Our House adopted the following resolution:

"WHEREAS, the use of food and the study and application of problems of nutrition are increasingly essential in the training and practice of the doctor; and

"WHEREAS, the problems of food in this country, as well as the world at large, are the concern of the medical profession; and "WHEREAS, the knowledge and experience in the possession of the medical profession in this country is of the utmost value in the discussion of national as well as international food relationships; be it

"Resolved, that the American Medical Association be urged to request representation at the coming United Nations' Food Conference to be held at Hot Springs, Virginia, on May 18, 1943.

The New York Delegation to the A.M.A. House considered that since the Food Conference had been long under way, there was no need to introduce a resolution to the A.M.A.

Foreign Physicians Survey (Section 75).—The House adopted a reference committee recommendation that the War Participation Committee of the State Society conduct a survey of alien physicians who would be willing to return to continental Europe for relief work. (See Report of War Participation Committee, Part XII.)

Full Citizenship as Requirement for License to Practice (Section 78).—The House recommended full citizenship be required now for licensure in New York State.

This was referred by the Council to its Committee

(See that report.) on Legislation.

Amendment of Federal Workmen's Compensation Act (Section 79).—The House adopted the following resolution:

"Whereas, employees working as longshoremen and harbor workers are covered against injury or death resulting from accidents while at work by the Federal Compensation Act (Public-No. 803-69 Congress) known as 'Longshoremen's and Harbor Workers' Compensation Act'; and

"WHEREAS, the employer of such workmen is obligated to furnish such medical, surgical, and other attendance or treatment, nurse and hospital service, medicine, crutches, and apparatus for such period as the nature of the injury or the process of

recovery may require; and "WHEREAS, physicians in the neighborhood of docks and harbors where such injury may occur have given such injured employees emergency treatment and have had the patient taken away from them by the employer or his agent and sent to the physician preferred by, or under contract

with, the employer; and "Whereas, such physicians who have treated such injured employees have difficulty in collecting fees for services rendered, even for emergency treatment; and

"WHEREAS, the employee, by such procedure, is deprived of free choice of a physician as provided for by the New York State Workmen's Compensation Law and advocated by the ethics of the American Medical Association; therefore, be it

"Resolved, that it is the consensus of opinion of the New York County Medical Society that the Federal Compensation Act known as Longshore-men's and Harbor Workers' Compensation Act be amended to allow injured employees to be treated by a physician of their own choice with whom they may stay until the completion of treatment."

The following resolution was introduced by the delegation to the A.M.A. and was approved:

"Whereas, employees working as longshoremen and harbor workers are covered against injury or death resulting from accidents while at work by the Federal Compensation Act (Public-No. 803-69 Congress) known as 'Longshoremen's and Harbor Workers' Compensation Act'; and

"WHEREAS, the employer of such workmen is obligated to furnish such medical, surgical, and other attendance or treatment, nurse and hospital service, medicine, crutches, and apparatus for such period as the nature of the injury or the proc-

ess of recovery may require; and

"WHEREAS, physicians in the neighborhood of docks and harbors where such injury may occur have given such injured employees emergency treatment, and have had the patient taken away from them by the employer or his agent and sent to the physicians preferred by, or under contract with, the employer; and

"WHEREAS, such physicians who have treated such injured employees have difficulty in collecting fees for services rendered, even for emergency

treatment; and

"WHEREAS, the employee, by such procedure, is deprived of free choice of a physician as provided for by the New York State Workmen's Compensation Law, and advocated by the ethics of the American Medical Association; and

"WHEREAS, the Medical Society of the State of New York went on record at its 1943 meeting in favor of an amendment providing free choice;

therefore, be it

"Resolved, that the American Medical Association seek to effect amendment of the Federal Compensation Act known as the 'Longshoremen's and Harbor Workers' Compensation Act' to allow injured employees to be treated by a physician of their own choice.

County Legislative Committees, Additional Meeting in Fall (Section 81).—The House adopted the following resolution:

"WHEREAS, the Medical Society of the County of Westchester believes that the legislative work of the Medical Society of the State of New York and the various county societies would be greatly facilitated by a conference of county society legislative committee chairmen with the State Society Legislative Committee to be held in the late fall each year, in advance of the Legislative Session, in addition to the legislative conference regularly held midway during the Legislative

"Whereas, such a preparatory conference would enable agreements to be reached for the Session; and support of legislation mandated by the House of

TABLE 1.—Number of Suits Instituted and Disposed of in 1943-1944

07 13 1540-1544		
	Instituted 1943–1944 (12 Months)	Disposed of 1943-1944 (12 Months
1. Fractures, etc. 2. Obstetrics, etc. 2. Obstetrics, etc. 3. Amputations. 4. Burns, r-rays, etc. 5. Operations: abdominal, etcnsil, ear, etc. 6. Needles breaking 7. Infections. 8. Eye infections. 9. Diagnosis. 10. Lunacy commitments. 11. Unclassified—medical.  Totals.  Actions for death Infants' actions.	7	9 12 10 25 29 2 9 14 92 5 4
Totals	15	9
How Dispose		
Settled Terminated in favor of defendant Judgment for plaintiff Total Pending on January 31, 1944	physician	3

Your Counsel conferred with the members of the Publication Committee and with the Board of Trustees on numerous occasions with reference to the problems which arose following the death of Kent Lighty, who was the advertising manager of the New York State Journal of Medical Directory of New York, New Jersey, and the Medical Directory of New York, New Jersey, and Connecticut, and manager of the Technical Exhibits at the Annual Meetings, and handled on behalf of the Society the legal problems which arose in connection with arranging an amicable settlement of the financial obligations of the Society to the estate of Mr. Lighty. Your Counsel also was consulted with reference to the legal problems in connection with the present methods employed by the Society in connection with advertising matter appearing in the Journal and the management of the Technical Exhibits.

Your Counsel drew the contracts between the Society and Dr. Joseph S. Lawrence, its Executive Officer, Dr. Peter Irving, Secretary and General Manager, and Mr. Dwight Anderson, Director of the Public Relations Bureau and Business Manager of the Journal, and Directors.

of the Journal and Directory.
Your Counsel has conferred at various times with members of the various committees and members of the Board of Trustees on numerous phases of their work and activities.

Your Counsel is constantly in contact by telephone

and letter with Dr. Peter Irving, Secretary and General Manager of the Society, and with Mr. Dwight Anderson with regard to the many questions that frequently arise in connection with their work.

In addition, your Counsel receives frequent requests for opinions, both oral and in writing, on topics too numerous to refer to in detail within the limited space of this report. A few of the matters on which advice has been given during the past year are the following:

Legality of sterilization operations; legality of special listing of physicians; extent of interns' right to practice medicine; responsibility of physicians for acts of nurses; legal obligation of the physician in administering blood transfusions; the extent to which a nurse may practice medicine; legal liability of residents in city hospitals; liability of hospital for anesthesia accidents; liability of physician for acts of x-ray technicians; legal basis of interruption of pregnancy in mentally retarded patients; right of physician to reveal confidential information to spouse of patient; obligation of physician to inform patient of diagnosis in cancer cases; legal responsibility of physician supervising administration of anesthesia; obligation of physician relative to taking of x-rays; legal requirements for consent of parents to surgery performed upon minors.

It should be noted that daily, either by personal

It should be noted that daily, either by personal inquiry at your Counsel's office or by telephone calls, members of the Society consult your Counsel and his office staff, seeking advice and assistance on various legal problems. The greater part of these inquiries represent emergency situations which are not handled by correspondence, but entail a considerable amount of time and work.

Legislative Advice and Activities.—During the period of time that the Legislature was in session in 1943, and at the opening of the 1944 session, your Counsel examined a number of bills affecting the medical profession and gave advice with respect thereto, and also conferred with an Executive Officer of the Society regarding such bills.

Mr. Clearwater attended both the annual and the November Conferences of the Council Committee on Legislation with the Chairmen of the County Society Legislation Committees held at Albany.

Conclusion.—Your Counsel closes this report, as his predecessor has in previous years, by expressing his deep appreciation for the work of his office staff, and he also wishes to note with grateful thanks the advice and assistance of the members of your Society who have helped us, both in court and in consultation, in the defense of malpractice actions. Their cooperation and assistance made it possible for your Counsel to obtain the results shown in this report.

Respectfully submitted, WILLIAM F. MARTIN, Counsel

## Amendments to Constitution and Bylaws

To the House of Delegates; Gentlemen:

At your last meeting there were introduced three amendments to the Constitution and Bylaws which will come before you for action at your coming Annual Meeting on May 8, 1944. In addition, action was postponed on another two amendments that had been originally introduced in 1942.

Because two of these new amendments are on the

same subject—change in the number of county society delegates—and because the language and intent were not fully clear, it has been thought best this year to have a reference committee to aid in clarification. Action, of course, will be under the Constitution by the House as a whole, with two-thirds vote of members of the House present and voting necessary for adoption.

and Lloyd Paul Stryker, has personally conducted the defense of hundreds of malpractice actions throughout the courts of the State of New York,

in all parts of the State.

During the reporting period certain other changes in personnel of the staff of your Counsel's office have taken place. Mr. Robert J. Bell, who for nearly ten years was an associate of your Counsel and his predecessor, entered the active service of the United States Navy, having received a commission as lieutenant, junior grade.
Mr. John J. De Luca, an attorney of excellent

qualifications and experience, has become associated with your Counsel's legal staff. In addition, Mr. Thomas J. Finnegan, an attorney of years of experience at the New York bar, has become associated

with the staff in a part-time capacity.

Mr. Thomas H. Clearwater, who has, since 1930, been the attorney for your Society and who is well known to many members of your Society throughout the State, is continuing in the same capacity with your Counsel. The efficient clerical staff of the late Lorenz J. Brosnan has remained intact.

In making this report we must seek to obtain brevity, and necessarily can submit only the barest outline of the work done in our department, which does not give a full picture of the work done or the responsibility assumed by our department.

We wish to record our appreciation for the assistance and cooperation furnished by your officers and committeemen. It has been a pleasure to work with

In making this report your Counsel adheres to the convenient category employed in previous years, whereby his activities have been divided into three main divisions: (a) the actual handling of malpractice actions before courts and juries and in the appellate tribunals; (b) counsel work with officers, committees, and individual members of the Society; and (c) legislative advice and activities.

Litigation.—As our predecessors on numerous occasions have done before us, we call to the attention of the members the dangers of careless, hasty, and unjust criticism by one physician of the work of We realize that in most instances the criticizing doctor does not intend to inspire a malpractice action by such comments, but it is true that frequently they are sufficient to stimulate in the mind of a patient an intention to institute litiga-tion against another physician. Experience has shown that many malpractice actions originate from such careless criticism.

At the risk of repetition, we call to the attention of your membership the ever present hazard of a malpractice action to the practicing physician. In such actions the rights of the physicians are in the hands of lay jurors, who often may be unduly in-fluenced by factors that do not go to the merits of the case, and we do know that daily jurors are rendering verdicts which in part, at least, are influenced by

sympathy, passion, prejudice, or bias.

It is difficult to understand why more of your members do not avail themselves of the Group Plan of insurance sponsored by the State Society. though a great percentage of the members carry such insurance, no month goes by in which we do not meet one or more physicians facing a lawsuit without the benefits of this insurance. Invariably they regret their failure to take advantage of the Group Plan. The Group Plan has now been in operation for well over twenty years and its outstanding success is a matter of record. It merits the loyal support of every member of the Society.

At this point we wish to mention The Yorkshire Indemnity Company, the carrier under your Group Plan for over eight years. It has in every way fully discharged all of its obligations and it has demonstrated a continuing and enthusiastic interest in the successful operation of our Group Plan. We record our appreciation of the cooperation of Mr. Horace Crowell, Jr., Superintendent of Claims of The Yorkshire Indemnity Company, with whom your Counsel and associates are in almost daily conference and consultation, and of Mr. Alan O. Robinson,

vice-president of the said Company.

Mention should be made of the splendid work of your insurance company under the chairmanship of Dr. Clarence G. Bandler. We have conferred on a number of occasions during the reporting period with Dr. Bandler in relation to the problems of the

Insurance Committee.

We are pleased to point out that through the efforts of Dr. Bandler and the cooperation of Col. H. F. Wanvig, the Indemnity Representative of your Society, and of The Yorkshire Indemnity Company, it has been arranged, after a review of the cost of operating the Group Plan for the past eight years, that commencing April 1, 1944, substantial reduc-tions in premium rates will be made. These reductions will include favorable changes in the base rate,

excess limits, and special endorsements. With these preliminary statements, we note that there were commenced within the present reporting period 87 cases. This figure is substantially lower than the figure reported a year ago, and still lower than the figure reported two years ago. It must be taken into consideration that many members of the medical profession are in the armed forces. Statutory provisions have been made whereby numerous malpractice cases which might have been instituted against physicians now in the armed forces may still be instituted against them upon their return to private life, and it is reasonable to anticipate that upon the cessation of hostilities and the discharge of these physicians from the armed forces, the number of such cases which will arise in the future could show a substantial increase. The 87 cases referred to, of course, do not include a number of claims outstanding on which suit may ultimately be brought. The preventative work done by your counsel and his office staff is of equal importance with the actual work of litigation. Throughout the year we are in consultation with many claimants and their at-torneys, and frequently have been successful in demonstrating to them that, in fact and in law, no Many of these claims consevalid claim exists.

quently never actually become lawsuits.

Table 1 shows that during the present reporting period we disposed of 92 cases. Thirty-seven of these cases were settled and 52 terminated successfully in favor of the physician. In 3 cases there were judgments for the plaintiff. We note from Table 1 that there were pending, as of January 31,

1944, 364 cases.

Counsel Work.—During the period of this report your Counsel, and until his death Mr. Brosnan, and Mr. Clearwater have attended the Annual Meeting of the Society and the regular meetings of the Council of your Society and have conferred with members of those bodies upon numerous legal problems which have presented themselves.

Your Counsel, acting with the Committee on By-Laws, examined various proposed amendments to the Constitutions and By-Laws of a number of component member societies, and has rendered advice and made suggestions in connection therewith.

. . . . The question was called for, and the motion was put to a vote, and was unanimously carried . . SPEAKER BAUER: They will remain in the hands

of the Secretary, and be republished next year. The meeting is now open for the introduction of

resolutions. The amendments as introduced in 1942 follow:

#### Article XIV

#### Medical Benevolence Fund

"There shall be created a Benevolence Fund under the terms and conditions outlined in Chap-ter XII, Article 4, of the Bylaws. For this pur-pose there shall be appropriated by the Trustees out of the funds of the Society a sum not to exceed fifty cents per active member per year, to be set aside by the Treasurer as a special fund for the purpose of this Article. This fund shall be kept separate and invested or distributed by direction of the Board of Trustees of the Society under rules and regulations approved by the latter. The fund shall be used only for the relief of pecuniary distress of sick or aged members who are or have been active members in good standing of the Society."

#### Chapter XII, Section 4 Special Committees

"Section 4-The President of the Society shall appoint, immediately after the Annual Meeting, a special committee of five to be known as the Special Committee on Benevolence of the Medical Society of the State of New York, consisting of two members from the Board of Trustees to be selected by the Chairman of the latter, the Treasurer, the Secretary, and a representative from the Woman's Auxiliary of the State Society to be selected by its President. This Committee shall select its own Chairman and have absolute jurisdiction over the distribution of such funds as have been allotted by the Society's Finance Committee from current income after appropria-tion by the Board of Trustees. No moneys shall be paid except on warrants signed by the Chairman of the Committee and the Treasurer. Committee shall formulate rules and regulations for the acceptance of beneficiaries for consideration and approval by the Council. It may solicit subscriptions, donations, and legacies to be added to the principal of the Benevolence Fund. It shall present a detailed audit of receipts and expenditures, included in an annual report of its activities to the Council and the House of Delegates."

> Respectfully submitted, LOUIS H. BAUER, M.D., Speaker Peter Irving, M.D., Secretary

March 1, 1944

## Reports of the District Branches

#### First District Branch

To the House of Delegates; Gentlemen:

The thirty-eighth Annual Meeting of the First District Branch was held at Grasslands Hospital,

Valhalla, New York, November 16, 1943.

This was a very satisfactory and pleasing one-day session, from 9:00 A.M. to 4:00 P.M., and followed quite closely the pattern of a meeting previously held at St. Joseph's Hospital, Yonkers, New York. The attendance was fair for this type of meeting, but did not compare favorably with the attendance at the meeting held at New York Hospital.

Grasslands is an excellent institution for similar meetings for medical men from the First District

Branch.

The program, divided into a morning and an afternoon session, was splendidly arranged, and the speakers and subjects chosen were most interesting.

speakers and subjects chosen were most interesting. In the morning session, devoted to surgery, rederick McClellan, M.D., New Rochelle, New York, chose for his topic, "Evaluation of Prostatic Obstruction." Wilfrid D. Wingebach, M.D., Bronxville, New York, gave a lecture entitled "Discussion of Surgical Conditions Within the Spinal Canal," and Win Henry Watters, M.D., White Plains, New York, orthopaedic surgeon, Gravlands Hospital, spoke on "Supracondyle Fracture in Children." George C. Adie, M.D., New Rochelle, New York, director of surgery, Grasslands Hospital, chose as his subject "Thoracic Surgery—Application in General Medicine." Surgery-Application in General Medicine."

An excellent luncheon followed the morning session, at which time Dr. Thomas A. McGoldrick, Brooklyn, President of the Medical Society of the State of New York, delivered a timely address on the effective efforts being made by the Society on the present medical problem.

the present medical problem.

At the afternoon session, devoted to a medical rogram, the following subjects were presented:
"Extra Human Poliomyelitis," by Gilbert Dalldorf,
M.D., director of laboratories, Grasslands, department of pathology; "Diagnosis and Chemotherapy
of Maningagacus and Other Forms of Meningitis." of Meningococcus and Other Forms of Meningitis, by Horace E. Robinson, M.D., Pleasantville, New York, formerly attending physician, communicable diseases, Grasslands Hospital (deceased); "Applica-tion of Functional Tests in the Treatment of Liver Disease," by Reid R. Heffner, M.D., New Rochelle, assistant director and attending physician in in-ternal medicine, Grasslands Hospital; "An Un-usual Case of Bacterial Endocarditis," by Fellowes Morgan Pruyn, M.D., Mt. Kisco, New York, adjunct attending physician in internal medicine, Grasslands Hospital.

The morning session was under the supervision of Dr. George C. Adie, and the afternoon session was under Dr. M. D. Touart, Bronxville, chief of the medical service at Grasslands Hospital. No business

was discussed.

was discussed.

Among those present were Dr. Peter Irving, Secretary and General Manager, State Medical Society; Dr. Joseph Lawrence, Executive Officer, State Medical Society, Dr. Nathan B. Van Etten, Past President of the A.M.A., and Dr. Edwin C. Podvin, Assistant Secretary, State Medical Society.

The First District Branch wishes to express its days expression, through the Director Dr. E.

deep appreciation, through the Director, Dr. E. L. Harmon, to Grasslands Hospital and to other participating physicians for the splendid arrangements and very excellent luncheon which made this meeting an outstanding event.

> Respectfully submitted, JAMES G. MORRISSET, M.D., President

February 11, 1944

The amendments follow, with excerpts from the minutes (by "Sections") of the 1943 meeting.

Section 68

Proposed Amendment to Bylaws, Chapter II, Section 1

Dr. J. Stanley Kenney, New York: This is a resolution to amend the Bylaws, Chapter II, Section 1, of the Medical Society of the State of New York:

"Whereas, the recently enacted reapportionment bill is based upon the population ratio and will thereby cause a redistribution of delegates from the component medical societies to the House of Delegates to the Medical Society of the State of New York; therefore be it

"Resolved, that the number of delegates from

any component medical society be not reduced from their present number unless there has been a material reduction of the number of physicians in

the area of any county medical society."

DR. ALFRED M. HELLMAN, New York: I second that.

SPEAKER BAUER: This being an amendment to the Bylaws, no action is required on it at this time, but it will remain in the hands of the Secretary and be acted on next year after due publication.

Section 89

Proposed Amendment to Bylaws, Chapter II, Section 1

Dr. Albert A. Cinelli, New York: This is an amendment to the Bylaws of the Medical Society of the State of New York, Chapter II, Section 1. Under (c) which now reads:

"Each component county society shall be entitled to elect as many delegates as there shall be State Assembly Districts in each county at the time of the election, but each component county medical society shall be entitled to elect at least one delegate"

is to be amended to read:

"Each component county society shall be entitled to elect delegates in proportion to the number of doctors practicing in the county at the time of election, but each component medical society shall be entitled to elect at least one delegate."

DR. HORACE E. AYERS, New York: I second that. SPEAKER BAUER: There was an amendment introduced yesterday to the same article. This will remain in the hands of the Secretary for one year, when, after being duly published, it will come before you for consideration.

Section 83

Proposed Amendment to Bylaws, Chapter X, Section 1

Secretary Irving: Mr. Speaker, there is in Part XII of the Council Report a matter that did not come before that reference committee, which I think should be read now. This is an amendment submitted by the Council to be acted on a year from now. I will read it. It is a small thing, so it will not take very long:

"Travel Expenses of Delegates to A.M.A.—The Council recommends that Chapter X of the Bylaws be amended to allow delegates to the American Medical Association the usual travel expenses such as are allowed to members of Council, Trustees, Censors, and members of committees, in-

stead of only 'railroad transportation and Pullman accommodations.' To that end the Council submits the following amendment:

"In Chapter X, Section 1, of the Bylaws delete the sentence which reads: "The delegates to the American Medical Association who have attended each session of the House of Delegates of that Association and who shall have filed with the Secretary evidence of such attendance shall be allowed the actual cost of railroad transportation and Pullman accommodations to the place of meeting and return, and insert in its place the following sentence: "The delegates to the American Medical Association who have attended each session of the House of Delegates of that Association and who shall have filed with the Secretary evidence of such attendance shall be allowed traveling expenses."

SPEAKER BAUER: This being an amendment, it will remain in the hands of the Secretary until next year when, after being duly published, it will come before you for consideration.

Section 19

Constitution and Bylaws Amendments—Action Delayed One Year

SPEAKER BAUER: The next two amendments are tied together, and I suggest you read them both: New Article, No. XIV, to the Constitution, and New Section, No. 4, to Chapter XII of the Bylaws.

Secretary Inving: My understanding is that the member who introduced those two amendments would like to have them withdrawn. This is Dr.

Kosmak.

DR. GEORGE W. KOSMAK, New York: I should like to ask that consideration on these resolutions be postponed until the next year's meeting of the House of Delegates.

SPEAKER BAUER: Dr. Kosmak, in effect, moves that consideration of these amendments be postponed until next year's meeting. Is there a second

to that motion?

DR. Kirby Dwight, New York: I will second it. Dr. Chas. Gordon Heyd, New York: A question of order: These have been published for action at this meeting. It seems to me that the motion should be that they be withdrawn, after which they can be reintroduced, but I know of no mechanism which can, after publication of a projected change in the Constitution and Bylaws, avoid a vote on it. Unless they are withdrawn, there is no mechanism, in my opinion, by which to postpone action upon them until next year. In order for us to take that course they must be reintroduced and we must follow the plan laid down for all changes in the Constitution and Bylaws.

SPEAKER BAUER: It is true that amendments cannot be tabled, but action on an amendment could be postponed until the following year because it amounts to the same thing as giving notice that one intends to bring the amendment up next year. I take it that that is the meaning of Dr. Kosmak's motion—that he wishes no action taken this year, but he is giving notice that he will reintroduce them, so that after republication they may be acted upon next year. Is that correct, Dr. Kosmak?

Dr. Kosmak: That is correct, Mr. Speaker. Speaker Bauer: Does that satisfy you, Dr.

Heyd?
DR. CHAS. GORDON HEYD: Yes.
SPEAKER BAUER: Is there any discussion on the
motion?

motion pictures taken during his big-game hunting

expeditions in Alaska.

During the afternoon, while the men were at the meeting, the ladies were entertained by the ladies of the Saratoga County Woman's Auxiliary to the Medical Society.

> Respectfully submitted, HAROLD A. PECK, M.D., President

February 8, 1944

#### Fifth District Branch

To the House of Delegates: Gentlemen:

I have the following report to make concerning the activities of the Fifth District Branch for the year 1943.

The meeting of the Fifth District Branch was held on Wednesday, September 22, 1943, at the Hotel Syracuse. There were 119 members and 7 visitors present, making a total of 126 in attendance.

The program was very interesting. It was as follows: 2:30 P.M., "Common Diseases of the Skin," with lantern slide illustrations, by Dr. Leon H. Griggs, associate professor of dermatology, Syracuse University College of Medicine; 3:30 P.M. to 5:30 P.M., a symposium by the department of obstetries of the Syracuse University College of Medicine: "The Use of Caudal Anesthesia in Obstetrics," by Dr. Francis Irving, clinical professor of obstetrics, Syracuse University College of Medicine, with discussion by Dr. Charles Albertson Lippincott and Dr. Frank Meyer; "Episiotomy—Recent Technics," by Dr. R. J. Pieri, clinical professor of obstation Surgery University College of fessor of obstetrics, Syracuse University College of Medicine: "The Significance of Vaginal Bleeding During the Third Trimester of Pregnancy," Dr. Merton Hatch, associate professor of obstetrics, Syracuse University College of Medicine; "Recent Advances in Cesarean Section," by Dr. Vincent Hemmer, associate professor of obstetrics, Syracuse University College of Medicine; and "Control of Late Toxemias of Pregnancy," by Dr. E. C. Hughes, professor of obstetrics, Syracuse University College of Medicine.

Following the dinner at 6:00 P.M. the President of the State Society, Dr. Thomas A. McGoldrick, discussed the medical features of the Wagner-

Murray-Dingell bill.

Election of officers resulted as follows: president, Dr. Dan Mellen, Rome; first vice-president, Dr. Sherman M. Burns, Oswego; second vice-president, Dr. H. Dan Vickers, Little Falls; secretary, Dr. J. E. McAskill, Watertown; treasurer, Dr. O. D.

Chapman, Syracuse.

Chapman, Syracuse.

At the scientific meeting at 8:00 p.m. two lectures were given. The first was "Lesions and Abnormalities About the Mouth," illustrated with Kodachrome slides, by Dr. J. E. McAskill of Watertown. The next was "Meningococcal Infections," by Dr. J. Howard Ferguson, professor of pathology, Syracuse University College of Medicine. The discussion was by Dr. O. D. Chapman, professor of bacteriology, Syracuse University College of Medicine, and Dr. A. C. Silverman, professor of pedicine, and Dr. A. C. Silverman, professor of pedicine, and Dr. A. C. Silverman, professor of pedi-

atrics, Syracuse University College of Medicine.
The Executive Committee of the Fifth District Branch offered to the Woman's Auxiliary of the county societies a prize of twenty-five dollars to be awarded to that county society which had the largest percentage in attendance. Oswego County

was awarded the twenty-five dollars.

It was generally agreed that the meeting was one of the most instructive and satisfactory held for many years.

> Respectfully submitted, EDWARD C. REIFENSTEIN, M.D., President

February 8, 1944

#### Sixth District Branch

To the House of Delegates; Gentlemen:

The thirty-seventh annual meeting of the Sixth District Branch of the Medical Society of the State of New York was held at Willard Straight Hall, Ithaca, New York, on Tuesday, September 28, 1943. The total attendance was 133. Only 65 of the persons present were from the District; the remaining 58 were medical and veterinary students at Cornell University.

The impact of war was felt more by the Society this year than last. Not only were a large number of physicians from central New York serving in the armed forces, but those at home were hampered because of extra work and difficulty in obtaining gasoline to attend the meeting. An unusual program

had been arranged.

The morning featured a lecture entitled "Continuous Caudal Anesthesia," was given by Dr. Francis R. Irving, clinical professor of obstetrics, Syracuse University School of Medicine. Dr. E. F. Hall, of Ithaca, discussed Dr. Irving's paper. The next paper was "Hematuria," by Dr. Thomas J. Kirwin, attending surgeon, Brady Clinic, New York Hospital. Dr. John Wattenberg, of Cortland, led the discussion.

At luncheon the members and guests heard a most inspiring address by Dr. Thomas A. McGoldrick, President of the Medical Society of the State of

New York.

This was followed by the election of officers.

Dr. Clifford F. Leet, of Horseheads, was elected president; Dr. Charles L. Pope of Binghamton, was re-elected first vice-president; Dr. Norman C. Lyster, of Norwich, was re-elected second vice-president; Dr. Hubert B. Marvin, of Binghamton, was re-elected secretary; and Dr. William A. Moulton, of Candor, was re-elected treasurer.

At the afternoon session two important papers were given—the first, "Physiological Considerations in the Treatment of Burns," by Lt. Herbert Brown, (MC), USNR, Philadelphia, and the second, "Anticoagulants," by A. Wilbur Duryee, associate clinical professor of medicine, New York Post-Graduate Medical School, Columbia University.

The afternoon papers evoked considerable comment. Discussion of the first paper was opened by Dr. H. B. Sutton, of Ithaca, and of the second by

Dr. Herbert Ensworth, of New York.

During my administration of the Sixth District Branch, each county society was contacted and some of them visited in the interest of setting up War Participation Committees. Emphasis was placed on the importance of the proper functioning of these committees. This has been a difficult time for the constituent medical societies of the District. Many members are in the armed services; the ones left at home are pressed for time. However, every effort should be made to stimulate more interest in the changing order of medicine. There is no Medical Indemnity Insurance Plan available for many of the counties of the District. I hope the

## Second District Branch

To the House of Delegates; Gentlemen:

The thirty-seventh annual meeting of the Second District Branch of the Medical Society of the State of New York was held on November 17, 1943, at the United States Naval Hospital at St. Albans.

An inspection of the new hospital began at 9:00 A.M. During the following two hours small groups of visitors were conducted through the hospital by members of the medical staff and by nurses. Several hundred physicians, members of the four county auxiliaries, and their guests thus had the opportunity, rarely afforded one outside the armed services, to inspect this new institution. At 11:00 A.M. the visitors congregated in the new auditorium, which, though not completely finished, was opened for this occasion. Between 11:00 A.M. and 12:30 P.M. three very interesting papers were delivered by members of the naval hospital staff. The first was on "Compound Fractures," by Lt. Comdr. Toumey, the second on "The Use of Penicillin," by Lt. Comdr. Hudson, and the third on "Medical Problems Associated with War Mobilization and Duty in the Field," by Lt. Comdr. Marr. All papers were well received and all brought forth much interesting discussion.

At luncheon 433 members and guests sat down in the officers' mess with our host, Capt. L. L. Pratt, the commanding officer of the hospital, and his staff. The excellence of the food and service was widely commented upon by those present.

At 2:00 P.M. the physicians returned to the auditorium while members of the Woman's auxiliaries went to the recreation room, where they played bridge.

The afternoon session was addressed by the President of the State Society, Dr. Thomas A. McGoldrick, who spoke on political trends as they affect the medical profession, and by Dr. Allen O. Whipple, professor of surgery at Columbia University, who spoke on the newer trends in the treatment of war injuries, especially burns and fractures. Dr. Whipple had recently returned from North Africa and he kindly substituted for Dr. Owen H. Wangensteen, who was unavoidably detained in Washington. Both papers were well received by the members present.

This meeting was unique in several ways. First, it was the largest meeting in point of attendance the branch has ever held. Also, it was the only meeting that ever returned a profit. We were able, after all accounts were settled, to present to the American Red Cross, U.S. Naval Hospital, St Albans Chapter, a check for \$200.85, representing the every sof receipts over expenditures.

the excess of receipts over expenditures.

The meeting was marred by only one sad incident, the announcement of the untimely death of our second vice-president, Dr. Charles W. Martin, which had occurred the previous day. Dr. Martin will be greatly missed by his colleagues and his host of friends both in and outside the profession.

of friends both in and outside the profession.

Our thanks are due to Captain Pratt, his executive officer, Captain Adams, and all their staff for their fine and hearty cooperation with your officers in making this an outstanding meeting.

Respectfully submitted,

FRANCIS G. RILEY, M.D., President

## Third District Branch

To the House of Delegates; Gentlemen:

The annual meeting of the Third District Branch was held at the Hendrick Hudson Hotel, Troy, on September 21, 1943. The attendance was approximately 100.

During the afternoon session the participants conducted an excellent scientific program. Moving pictures of medical work at the front were shown. A general discussion on parasitic diseases was conducted.

Following the scientific program a dinner was held. The speakers were representatives of the Army and Navy who related some firsthand experiences in the combat areas.

On January 19, 1944, a meeting of the executive committee and representatives of the seven component county societies was held at the De Witt Clinton Hotel, Albany, to discuss the Wagner-Murray-Dingell bill relative to governmental supervision of medical care. After a lengthy discussion in which each one present took part, a resolution was adopted disapproving of the medical features of the bill. Various plans were discussed to be used in accomplishing the defeat of this bill, if and when it comes out of committee in the Senate. As this was the off year, no election of officers was held.

Respectfully submitted, Stephen H. Curris, M.D., President

February 25, 1944

#### Fourth District Branch

To the House of Delegates; Gentlemen:

The Fourth District Branch of the Medical Society of the State of New York held its thirty-seventh Annual Meeting at Newman's Lake House in Saratoga, New York, Thursday, September 23, 1943. Nine of the ten counties comprising the Branch were represented at the meeting. Seventy-six members were present.

The afternoon meeting consisted of three papers. The first was "Treatment of War Injuries," by Col. A. J. Canning, (MC), USA. Colonel Canning was at Pearl Harbor on duty at Schofield Barracks at the time of the Japanese bombing and gave us a word picture of treatment of the wounded and burned personnel of that great base. "The Allergic Child" was presented by Dr. Bret Ratner, clinical professor of pediatrics, New York University College of Medicine. Dr. Ratner discussed the commoner types of allergy and the treatment thereof. "Clinical and Laboratory Studies of Burns with Special Reference to the Cocoanut Grove Fire," by Drs. Edward A. Cooney and Stanley Levenson of Boston, Massachusetts, was the third paper. These talks were illustrated with pictures of the burns before and after treatment and gave the listeners the results of the different types of treatments used and told what, in the experience of the speakers, had been

the most satisfactory.

In the evening, dinner was served to 136 members, their wives, and their friends. After dinner there was an address by Dr. Thomas A. McGoldrick, President of the State Society, who gave us a little insight into the things to come in state and federal medicine, providing that we do not get busy and medicine, providing that we do not get busy and medicine, providing that we do not get busy and suggest measures to counteract these trends. Following Dr. McGoldrick's talk we were entertained by Dr. G. Scott Towne, of Saratoga, who showed

## 1944 Annual Meeting

## Medical Society of the State of New York

May 8, 9, 10, 11—The Hotel Pennsylvania, New York City

## House of Delegates

The regular annual meeting of the House of Delegates of the Medical Society of the State of New York will be called to order at 10:00 a.m. on Monday, May 8, 1944, in the Keystone Room, Balcony Floor of the Hotel Pennsylvania, New York City.

In accordance with Chapter II, Section 3, of the revised Bylaws, the House will assemble according to the following schedule:

Monday, May 8, 1944 10:00 a.m. and 3:30 p.m. TUESDAY, May 9, 1944 9:00 a.m. and 1:00 p.m.

At the last adjourned session (1:00 P.M., Tuesday, May 9) the election of officers, councilors, trustees, and delegates will occur in accordance with Chapter III, Section 1, of the revised Bylaws.

In order that members of Reference Committees may be enabled to attend all sessions of the House, all Reference Committees except the Credentials and New Business Committees are urged to meet on Sunday afternoon, May 7, 1944, so that they can complete the majority of their work prior to the assembling of the House on Monday. Officers and Chairmen of Council Committees are likewise urged to be present on Sunday afternoon so that they may appear before the appropriate reference committees.

LOUIS H. BAUER, M.D., Speaker PETER IRVING, M.D., Secretary

## 138th Annual Meeting

This year, as last year, the decision has been to have no banquet. The Annual Meeting will take place at 2:30 r.m. or as

near thereafter as possible, following adjournment of the last session of the House of Delegates. The place will be the Keystone Room, Balcony Floor. The Society will be called to order by the President, with the reading of the minutes by the Secretary.

THOMAS A. McGoldrick, M.D., President \*Peter Irving, M.D., Secretary

## Registration

Registration will be held in the Hotelfor delegates on Monday, May 8, after 9:00 A.M.; for members, on Monday, Tuesday, Wednesday, and Thursday, May 8, 9, 10, 11, from 9:00 A.M. to 6:00 P.M.

#### Exhibits

Scientific and Technical Exhibits will be located in the Hotel.

Scientific Motion Pictures will be shown. See Official Program for details.

#### Scientific Sessions

General Sessions on Tuesday and Thursday afternoons. Section and Session meetings will be held on Tuesday morning, Wednesday morning and afternoon, and Thursday morning.

## New York State Association of School Physicians

This year, as last year, the School Physicians, on invitation, will hold meetings in the afternoon and evening of Monday, May 8, with a dinner to be arranged. (See page 816 for the program.)

## Woman's Auxiliary

See page 814 for the program.

day is not far away when a Plan will be available to all the counties of the District.

Respectfully submitted

NORMAN S. MOORE, M.D., President February 21, 1944

### Seventh District Branch

To the House of Delegates; Gentlemen:

The thirty-seventh annual meeting of the Seventh District Branch was held on Thursday, September 30, 1943, at the Academy of Medicine in Rochester. There were 130 members present.

The meeting came to order at 10:00 A.M., with an hour devoted to the showing of motion pictures

by the British Information Services.

Dr. Richard B. Cattell, surgeon, of the Lahey Clinic, Boston, New England Deaconess Hospital, and New England Baptist Hospital, then read a paper on "Recent Improvements in Biliary Tract Surgery," illustrating it with lantern slides.

The District Branch then went into its business meeting and elected the following officers for the meeting and elected the following officers for the ensuing two years: president, Homer J. Knickerbocker, Geneva; first vice-president, Howard S. Brasted, Hornell; second vice-president, Lloyd F. Allen, Pittsford; secretary, Kenneth T. Rowe, Dansville; treasurer, George H. Gage, Rochester.

After luncheon, officers of the State Medical Society were introduced: Dr. Thomas A. McGoldrick President: Dr. Peter Lyving Secretary and

rick, President; Dr. Peter Irving, Secretary and General Manager; Dr. Joseph S. Lawrence, Executive Officer; and Mr. Dwight Anderson, Director of the Bureau of Public Relations.

Dr. McGoldrick gave an address in which opposition was expressed to the medical provisions of the Wagner-Murray-Dingell bill in sound and forceful

fashion. The scientific program was then continued with two papers. Dr. L. T. Coggeshall, of the School of Public Health, University of Michigan, Ann Arbor, spoke on 'Postwar Tropical Disease Problems.' Dr. David P. Barr, professor of medicine, Cornell University Medical College, New York, spoke on 'The College, New York, spoke on the College, New York, spoke "The Role of Myocardial Disease in Heart Failure."

Respectfully submitted, BENJAMIN J. SLATER, M.D., President

March 1, 1944

### Eighth District Branch

To the House of Delegates; Gentlemen:

The thirty-eighth annual meeting of the Eighth District Branch was held at Buffalo at the Hotel Statler on Wednesday, September 29, 1943. There were about 125 present.

The morning session began at 10:00 A.M. with a talk on "Industrial Dermatitis" by Dr. Joseph L Morse of New York. This talk was interesting and instructive because of the ever increasing number of cases of industrial dermatitis brought about by the many different kinds of war industries.

The second paper of the day was given by Dr. Burrill Crohn, New York, on "Peptic Ulcer." Dr. Crohn brought out many interesting points about the diagnosis and treatment of this condition.

Both of these papers were well received and freely discussed by the members who were present.

After luncheon Dr. Thomas A. McGoldrick, Brooklyn, President of the Medical Society of the State of New York, read a paper emphasizing forcibly many facts about the progress of medicine and also stated that we must be on the alert to combat the insidious attempts to force on the American people any foreign system of medical practice.

The nominating committee, consisting of Dr. William D. Johnson, Batavia, Dr. Herbert H. Bauckus, Buffalo, and Dr. Abraham H. Aaron, Buffalo, reported the slate of officers for the next Buttalo, reported the slate of officers for the next two years and the following were duly elected: president, Dr. Peter J. Di Natale, Batavia; first vice-president, Dr. Robert C. Peale, Olean; second vice-president, Dr. John C. Kinzly, North Tonawanda; secretary, Dr. William J. Orr, Buffalo; treasurer, Dr. Henry S. Martin, Warsaw.

Dr. Herbert H. Bauckus, Buffalo, President-Elect of the Medical Society of the State of New York, and Dr. Carlton E. Wertz, Buffalo, spoke briefly on the medical and hospitalization plan. They expressed a desire that more active interest should

pressed a desire that more active interest should and must be shown by the physicians in getting the present plans before the people so that more of them would participate in the voluntary plans for medical and hospital care.

In the afternoon Dr. Herman O. Mosenthal, New York, spoke on "Chronic Nephritis." Dr. Donald Guthrie, Sayre, Pennsylvania, spoke on "Important Points in the Surgical Treatment of Brain Tumors." Dr. Guthrie showed some interesting slides.

These papers were very instructive, were pre-sented in an excellent manner, and were freely

discussed. Since Dr. Robert C. Peale, President of the Branch, is in the service, it falls upon me to make this report.

Respectfully submitted, PETER J. DI NATALE, M.D., Vice-President

March 2, 1944

### SECTIONS

All papers read before the Society by members become the property of the Society. The *original* copy of each paper shall be left with the secretary of the Section.

Discussers should have their remarks typed, double-spaced, and hand

them to the secretary.

Time limits: Twenty minutes for each paper, five minutes for individual discussion.

New York

York

Section meetings shall begin promptly at the hour specified.

# Section on ANESTHESIOLOGY

Chairman . . . . F. Paul Ansbro, M.D., Brooklyn Vice-Chairman Milton C. Peterson, M.D., New York Secretary . . . . . Rose Lenahan, M.D., Buffalo

Tuesday, May 9-10:00 A.M. Hotel Pennsylvania, Conference Room 2

Address of Welcome Paul M. Wood, M.D., New York

Chairman's Address: "Pneumatology" F. Paul Ansbro, M.D., Brooklyn Discussion: Paluel J. Flagg, M.D., New York

- "Continuous Caudal Analgesia"
   Robert A. Hingson, M.D., Philadelphia,
   Pennsylvania (By invitation)
   Discussion: Ernest L. Perri, M.D., Brooklyn
   (By invitation)
- "The Utility of a Directional Needle in Controlling Duration and Extent of Spinal Anesthesia"
   E. A. Rovenstine, M.D., New York Discussion: Irving M. Pallin, M.D., Brooklyn

Wednesday, May 10—2:00 P.M. Hotel Pennsylvania, Conference Room 2

- "Regional Anesthesia in the Army"
   Stevens J. Martin, Maj., (MC), AUS, Fort Dix, New Jersey (By invitation)
   Discussion: Arthur M. Suffin, M.D., Hempstead
- "An Evaluation of the Use of Curare in Bronchoscopy"
   Joseph S. Silverberg, M.D., Brooklyn

Joseph S. Silverberg, M.D., Brooklyn
Discussion: Mervin C. Myerson, M.D., New
York

"The War and Oxygen Therapy"
 John H. Evans, M.D., Buffalo
 Discussion: Alvan L. Barach, M.D., New
 York

### Section on

### DERMATOLOGY AND SYPHILOLOGY

Chairman.... Harry C. Saunders, M.D., New York Secretary....... James W. Jordan, M.D., Buffalo

> Wednesday, May 10-10:00 A.M. Hotel Pennsylvania, Salle Moderne

- "Measures to Prevent and Control an Epidemic of Ringworm of the Scalp" George M. Lewis, M.D., New York Seymour H. Silvers, M.D., Brooklyn Anthony C. Cipollaro, M.D., New York Harold H. Mitchell, M.D., Long Island City Emanuel Muskatblit, M.D., New York Discussion: Royal M. Montgomery, M.D.,
- "Fluorescence with the Wood Filter as an Aid in Dermatologic Diagnosis"
   Maurice J. Costello, M.D., New York Louis V. Luttenberger, M.D., New York Discussion: Herman Goodman, M.D., New
- "Mycosis Fungoides: Two Unusual Types— One Presenting Leonine Facies; the Other, Parapsoriasis (?) in Patches for Thirty Years"
   E. William Abramowitz, M.D., New York Ben Kanee, M.D., New York (By invitation)
   Discussion: Wilbert Sachs, M.D., New York (By invitation)
- "The Penetration of Allergens into the Human Skin"
   Marion B. Sulzberger, Comdr., (MC), USNR, New York Rudolf L. Baer, M.D., New York Franz Herrmann, M.D., New York Discussion: Mary H. Loveless, M.D., New York

Thursday, May 11—10:00 A.M. Hotel Pennsylvania, Salle Moderne

 "An Intradermal Reaction as an Aid in the Diagnosis of Granuloma Inguinale" Borris A. Kornblith, M.D., New York Discussion: Nathan Sobel, M.D., New York

### Symposium

THE INTENSIVE TREATMENT OF SYPHILIS

- "A Rapid Cure Plan for Treatment of Early Syphilis for Office Practice"
   A. Benson Cannon, M.D., New York
- "Intensive Treatment of Early Syphilis— Method of Eagle and Hogan" George Miller MacKee, M.D., New York Girsch D. Astrachan, M.D., New York
- "Serologic Aspects of Intensive Arsenic Therapy in Syphilis"
   John F. Mahoney, M.D., Staten Island (By invitation)
   Richard C. Arnold M.D., Staten Island (By invitation)

# Scientific Program

### The Committee:

D. Dexter Davis, M.D., Chairman, Brooklyn and Chairmen of Sections and Sessions

### GENERAL SESSIONS

(Dr. Davis presiding)

The presentations at these Sessions will consist of one-half hour lectures, without discussion. The meetings will start promptly at the hour specified. Members are requested to be in their seats at least five minutes in advance of the meeting time.

Tuesday, May 9—3:00 P.M. Hotel Pennsylvania, Keystone Room

- "Clinical Experience with Penicillin"
   Donald G. Anderson, M.D., Research Fellow in Medicine, Evans Memorial Hospital, Boston, Massachusetts
- 2. "The Surgical Treatment of Chronic Constrictive Pericarditis"

  George I Haner M.D. Surgeon in Chief.

George J. Heuer, M.D., Surgeon in Chief, New York Hospital; Professor of Surgery, Cornell University Medical College, New York

Harold J. Stewart, M.D., Associate Professor of Medicine, Cornell University Medical College, New York

- "The Difficulty of Evaluating Drug Treatment in Surgical Infections"
   Frank L. Meleney, M.D., Associate Clinical Professor of Surgery, College of Physicians and Surgeons, Columbia University; Associate Attending Surgeon, Presbyterian Hospital, New York
- "Recent Advances in Studying the Problems of Wound Healing and Their Effect on Treatment"

Edward L. Howes, M.D., Associate Clinical

Professor of Surgery, College of Physicians and Surgeons, Columbia University; Assistant Attending Surgeon, Presbyterian Hospital, New York

(The A. Walter Suiter Lectureship....This will be the sixth lecture to be delivered under this lectureship fund.)

Thursday, May 11—2:00 P.M. Hotel Pennsylvania, Keystone Room

- "Practical Management of Certain Endocrine Disorders"
   Lewis M. Hurxthal, M.D., Department of Internal Medicine, The Lahey Clinic, Boston,
  - Massachusetts

    "Surgical Treatment of Hypertension"

    James L. Poppen, M.D., Department of
    Neurosurgery, The Lahey Clinic, Boston,
- Massachusetts
  3. "Surgery of the Stomach and Duodenum"
  Frank H. Lahey, M.D., Chief, and Director
  of Surgery, The Lahey Clinic, Boston, Massachusetts
- "Diagnosis of Disorders of the Small and Large Intestine" Everett D. Kiefer, M.D., Department of Gastroenterology, The Lahey Clinic, Boston,

Massachusetts

### Wednesday, May 10-2:00 P.M. Hotel Pennsylvania, Parlor 1

- "Lesions of the Cervical Intervertebral Disk: Clinicopathologic Study of Twenty-two Cases" E. Jefferson Browder, M.D., Brooklyn Robert A. Watson, M.D., Little Rock, Arkansas (By invitation)
   Discussion: Byron Stookey, M.D., New York
- 2. "Gross Intracerebral Hematomas"
  Wallace B. Hamby, M.D., Buffalo
- 3. "Treatment of Poliomyelitis" Irving J. Sands, M.D., Brooklyn

# Section on OBSTETRICS AND GYNECOLOGY

Chairman....Edward A. Bullard, M.D., New York Secretary..Charles J. Marshall, M.D., Binghamton

### Tuesday, May 9-9:30 A.M. Hotel Pennsylvania, Salle Moderne

- "Vitamin C in Erythroblastosis Fetalis—Its
  Possible Role in Etiology and Prevention"
   Lyman Burnham, M.D., Englewood, New Jersey (By invitation)
   Discussion: Opened by L. James Talbot,
  M.D., New York (By invitation)
- "Common Factors in Maternal Mortality"
   Ralph L. Barrett, M.D., New York
   Discussion: Charles A. Gordon, M.D., Brooklyn
- "Diagnosis and Treatment of Lesions of the Uterine Cervix" Charles E. Galloway, Maj., (MC), AUS, Fort Oglethorpe, Georgia (By invitation) Discussion: Robert T. Frank, M.D., New York

### Wednesday, May 10-2:00 P.M. Hotel Pennsylvania, Salle Moderne

"Vesicovaginal Fistula"
 Virgil S. Counseller, M.D., Rochester,
 Minnesota (By invitation)
 Discussion: George Gray Ward, M.D., New
 York; and Albert H. Aldridge, M.D., New
 York

 "Penicillin Treatment in Sulfa-Resistant Cases of Gonorrhea in the Female" Emily Dunning Barringer, M.D., New York Hyman Strauss, M.D., Brooklyn Edward A. Horowitz, M.D., New York

"An Evaluation of Continuous Caudal Analgesia in Obstetrics"
 Clifford B. Lull, M.D., Philadelphia, Pennsylvania (By invitation)
 Robert A. Hingson, M.D., Philadelphia, Pennsylvania (By invitation)
 Discussion: Benjamin P. Watson, M.D., New York; and William Levine, M.D., Brooklyn

### Section on OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman...James E. McAskill, M.D., Watertown Secretary.......Harold H. Joy, M.D., Syracuse

### Wednesday, May 10-9:00 A.M. Hotel Pennsylvania, Parlor 2

 "The Treatment of Complications of Cataract Extraction"
 John H. Dunnington, M.D., New York

Discussion: E. Clifford Place, M.D., Brooklyn; and Ivan J. Koenig, M.D., Buffalo

- "The Ophthalmoscopic Signs of Terminal Hypertension"
   Arthur J. Bedell, M.D., Albany
   Discussion: Searle B. Marlow, M.D., Syracuse;
   and Morris H. Newton, M.D., Little Falls
- 3. "The Interpretation of Visual Fields in Neurotic Patients"
  John F. Gipner, M.D., Rochester
  Discussion: Thurber Le Win, M.D., Buffalo;

and Walter F. Duggan, M.D., Utica

4. "Evaluation of Newer Drugs Used in Ophthal-

mology"
Walter S. Atkinson, M.D., Watertown
Discussion: Albert C. Snell, M.D., Rochester;
and Ludwig von Sallmann, M.D., New York
(By invitation)

 "The Progress of the Glaucoma Campaign During the Past Three Years" Mark J. Schoenberg, M.D., New York Discussion: Frank M. Sulzman, M.D., Troy; and E. Perry Hall, M.D., Oneonta

### Thursday, May 11—10:00 A.M. Hotel Pennsylvania, Parlor 2

- "Chemotherapy, Microbiotic Substances, and Radon—Their Local Use as Therapeutic Agents in Otolaryngology" Arthur T. Ward, Jr., M.D., Baltimore, Maryland (By invitation) Discussion: Daniel S. Cunning, M.D., New York
- "Anomalies of the Speech Mechanism and Associated Voice and Speech Defects" James Sonnett Greene, M.D., New York Discussion: Henry Sage Dunning, M.D., New York; and Douglas Quick, M.D., New York

 "Report of Eighty-five Fenestration Operations for Otosclerosis"
 J. Morrisset Smith, M.D., New York Discussion: James A. Babbitt, M.D., Philadelphia, Pennsylvania (By invitation)

# Section on ORTHOPAEDIC SURGERY

Chairman...Roscoe D. Severance, M.D., Syracuse Secretary.....Robert M. Cleary, M.D., Buffalo

> Wednesday, May 10—10:00 A.M. Hotel Pennsylvania, Manhattan Room

- "The Management of War Amputations in a General Hospital"
   Rufus H. Alldredge, Capt., (MC), AUS, Washington, D.C. (By invitation)
  Discussion with motion pictures: Philip Wilson, M.D., New York
- 2. "Calcific Deposits in the Shoulder"
  Harrison L. McLaughlin, M.D., New York

Discussion of Symposium: Frank C. Combes, M.D., New York; and Theodore Rosenthal, M.D., New York

# Section on GASTROENTEROLOGY AND PROCTOLOGY

Chairman.....F. Leslie Sullivan, M.D., Scotia Vice-Chairman...Stockton Kimball, M.D., Buffalo Secretary....Descum C. McKenney, M.D., Buffalo

### Wednesday, May 10—10:00 A.M. Hotel Pennsylvania, Parlor 1

- "The Surgical Treatment of Intractable Ulcerative Colitis"
   John H. Garlock, M.D., New York
   Discussion: Burrill B. Crohn, M.D., New York
- "Medical Aspects of Recalcitrant and Complicated Ulcer"
   Sara M. Jordan, M.D., Boston, Massachusetts (By invitation)
   Discussion: Albert A. Berg, M.D., New York
- "Subtotal Gastrectomy in Medically Resistant Ulcer"
   J. William Hinton, M.D., New York Discussion: Fordyce B. St. John, M.D., New York
- "Sigmoiditis"
   Anthony Bassler, M.D., New York
   Discussion: Lester S. Knapp, M.D., Buffalo

### Thursday, May 11-10:00 A.M. Hotel Pennsylvania, Parlor 1

- 1. "Trauma in Relation to Peptic Ulcer" Irving Gray, M.D., Brooklyn
- "Factors Contributing to Failure of Biliary Tract Surgery" Robert P. Dobbie, M.D., Buffalo Discussion: Albert F. R. Andresen, M.D., Brooklyn
- "Anorectal Disease Seen and Treated in the Army"
   J. Edwin Alford, Capt., (MC), AUS, Fort Jay Discussion: Descum C. McKenney, M.D., Buffalo
- 4. "War Wounds of the Colon and Rectum"
  Joseph E. Hamilton, Capt., (MC), AUS,
  Walter Reed General Hospital, Washington,
  D.C.
  Discussion: A. W. Martin Marino, M.D.,
  Brooklyn

# Section on INDUSTRIAL MEDICINE AND SURGERY

Chairman....Orvis A. Brenenstuhl, M.D., Albany Secretary.....Russell C. Kimball, M.D., Brooklyn

> Tuesday, May 9-10:00 A.M. New York Post-Graduate Hospital

"The Severely Injured Employee—Early and Late Treatment"
John J. Moorhead, M.D., of the Department of Traumatic Surgery, Bellevue Hospital, New York Post-Graduate Medical School and Hospital will conduct this session at Post-Graduate Hospital.

Wednesday, May 10—10:00 A.M. Hotel Pennsylvania, Foyer of Keystone Room

"Scope of an Industrial Medical Service—Description of the Type and Scope of Service Available to Employees"

Haynes H. Fellows, M.D., New York Discussion: John J. Wittmer, M.D., Brooklyn; and Philip L. Forster, M.D., Albany General Discussion

# Section on MEDICINE

Chairman .. Frederic W. Holcomb, M.D., Kingston Vice-Chairman.Frederick W. Williams, M.D., Bronv Secretary.....Harold F. R. Brown, M.D., Buffalo

Wednesday, May 10—10:00 A.M. Hotel Pennsylvania, Keystone Room

Joint Meeting with the Section on Surgrey (See Section on Surgery)

Thursday, May 11—10:00 A.M. Hotel Pennsylvania, Roof, South Part

- "Problems in the Postoperative Care of Cancer Patients" Norman Treves, M.D., Memorial Hospital, New York
- "The Atypical Pneumonias"
   William S. Tillett, M.D., Department of
   Medicine, New York University College of
   Medicine, New York
- "Problems of Treatment of Tropical Diseases in Returning Military Personnel" Henry E. Meleney, M.D., Department of Preventive Medicine, New York University College of Medicine, New York

General Discussion

# Section on NEUROLOGY AND PSYCHIATRY

Chairman.....Angus M. Frantz, M.D., New York Secretary......Albert E. Siewers, M.D., Syracuse

### Tuesday, May 9-10:00 A.M. Hotel Pennsylvania, Parlor 1

- "The Electrofit in Depressions—Comparison of Hospital and Privately Treated Patients" David J. Impastato, M.D., New York John Frosch, M.D., New York Renato J. Almansi, M.D., New York S. Bernard Wortis, M.D., New York
- "Electric Sleep Therapy"
   Foster Kennedy, M.D., New York
- "Alcoholics Anonymous"
   William G. Wilson, New York (By invitation

Wednesday, May 10—2:00 P.M. Hotel Pennsylvania, Manhattan Room

Joint Meeting with the Section on Pathology and Clinical Pathology (See Section on Pathology and Clinical Pathology)

# Section on RADIOLOGY

Chairman...E. Forrest Merrill, M.D., New York Vice-Chairman...Alfred L. L. Bell, M.D., Brooklyn Secretary.....Lee A. Hadley, M.D., Syracuse

> Wednesday, May 10—10:00 A.M. Hotel Pennsylvania, Conference Room 2

1. Symposium

Changes Which Have Resulted from the Use of Sulpha Drug Therapy

"In the Treatment of Chest Conditions" Chester O. Davison, M.D., Poughkeepsie

"In Mastoid X-Rays"
William Richard Cashion, M.D., Jackson
Heights

"In the Management of Osteomyelitis"
James M. Flynn, M.D., Rochester
Discussion of Symposium opened by Frederick S.
Wetherell, M.D., Syracuse

 "Observations on the Use of a New Material for Cholecystography"
 Lois C. Collins, M.D., New York (By invitation)
 Ross Golden, M.D., New York
 Discussion: Eric J. Ryan, Lt. Comdr., (MC), USN, New York

"Myelography with Pantopaque"
 George H. Ramsey, M.D., Rochester
 J. Douglas French, M.D., Rochester
 William H. Strain, Ph.D., Rochester (By invitation)
 Discussion opened by Arthur B. Soule, Jr., Maj., (MC), AUS, Staten Island (By invitation)

Thursday, May 11—10:00 A.M. Hotel Pennsylvania, Conference Room 2

- "The Role of the Hospital in Medical Care" Mac F. Cahal, J.D., Dallas, Texas (By invitation)
- 2. Round-Table Discussion

The discussion will be in the nature of a "quiz." Radiologists will submit problem films with brief résumés of relevant information. Discussion leaders are:

Ross Golden, M.D., New York, Chairman Merrill C. Sosman, M.D., Boston, Massachusetts (By invitation) Robert E. Pound, M.D., New York

### Section on SURGERY

Chairman.....W. J. Merle Scott, M.D., Rochester Secretary.....Beverly C. Smith, M.D., New York

Wednesday, May 10-10:00 A.M. Hotel Pennsylvania, Keystone Room

Joint Meeting with the Section on Medicine

### Symposium

THE ETIOLOGY, DIAGNOSIS, TREATMENT, AND PROGNOSIS OF ESSENTIAL HYPERTENSION

 "Recent Advances in Etiology, Diagnosis, and Treatment of Essential Hypertension" Irvine H. Page, M.D., Indianapolis, Indiana (By invitation)

2. "Medical Treatment and Prognosis of Essential Hypertension"

Dana W. Atchley, M.D., New York

 "Ocular Fundi in Essential Hypertension—Preand Postoperative" Hugh S. McKeown, M.D., New York

t. "Experience with the Surgical Treatment of Hypertension" Reginald Smithwick, M.D., Boston, Massachusetts (By invitation)

> Thursday, May 11-10:00 A.M. Hotel Pennsylvania, Keystone Room

### Symposium

THE TREATMENT OF SPECIAL INFECTIONS

 "The Treatment of Infection with Particular Reference to the Peritoneum" Samuel C. Harvey, M.D., New Haven, Connecticut (By invitation)

 "The Role of Penicillin in the Treatment of the Septic Compound Fracture" George K. Carpenter, Maj., (MC), AUS, Staten Island (By invitation) Karl F. Mech, Capt., (MC), AUS, Staten Island (By invitation)

 "The Prophylaxis and Therapeusis of Clostridial Infections—Gas Gangrene"

Andrew H. Dowdy, M.D., Rochester Robert L. Sewell, M.D., Fort Worth, Texas (By invitation)

Discussion of Symposium: John J. Morton, M.D., Rochester

### Section on UROLOGY

Chairman...A. Laurence Parlow, M.D., Rochester Vice-Chairman...George E. Slotkin, M.D., Buffalo Secretary.....John K. de Vries, M.D., New York

Tuesday, May 9-10:00 A.M. Hotel Pennsylvania, Foyer of Keystone Room

### Symposium

#### RENAL TUMORS

- "Solid Tumors of Renal Parenchyma" Ernest M. Watson, M.D., Buffalo
- "Wilms Tumors" Archie L. Dean, Jr., M.D., New York
- 3. "Tumors of the Adrenal" George F. Cahill, M.D., New York

Discussion of Symposium: Benjamin S. Bar-

3. "Bicipital Tenosynovitis" Robert K. Lippmann, M.D., New York Discussion of "Surgical Aspects" of last two papers opened by David M. Bosworth, M.D., New York Discussion of "Medical Viewpoint" of both papers opened by Otto Steinbrocker, M.D.,

### Thursday, May 11—10:00 A.M. Hotel Pennsylvania, Manhattan Room

Joint Meeting with the Section of Orthopaedic Surgery of the New York

(By invitation) (Program to be announced later in the official Program)

Academy of Medicine

### Section on

### PATHOLOGY AND CLINICAL PATHOLOGY

Chairman.......Ward H. Cook, M.D., Yonkers Vice-Chairman..Fred W. Stewart, M.D., New York Secretary......M. J. Fein, M.D., New York

### Tuesday, May 9-10:00 A.M. Hotel Pennsylvania, Parlor B

- "Medicolegal Systems—Actual and Ideal" Harrison S. Martland, M.D., Newark, New Jersey (By invitation) Discussion: Floyd S. Winslow, M.D., Rochester
  - "Sudden and Unexpected Natural Death" Milton Helpern, M.D., New York Discussion: George M. Mackenzie, M.D.,
  - Cooperstown "Medicolegal Applications of the Rh Blood Types"
  - Alexander S. Weiner, M.D., Brooklyn Discussion: Ernest Witebsky, M.D., Buffalo

### Wednesday, May 10-2:00 P.M. Hotel Pennsylvania, Manhattan Room

Joint Meeting with the Section on Public Health, Hygiene and Sanitation

### Round Table

Wilson G. Smillie, M.D., New York, Chairman

"Amebiasis"

Ralph W. Nauss, M.D., New York (By invitation)

"Schistosomiasis" Henry E. Meleney, M.D., New York

"Epidemiologic Features of Malaria" Morton C. Kahn, M.D., New York (By invita-

tion)

"Intestinal Helminths" Harold W. Brown, M.D., New York (By invitation)

"Dysentery" Albert V. Hardy, M.D., New York (By invitation)

Donald L. Augustine, M.D., Boston, Massachusetts (By invitation)

### Section on PEDIATRICS

Chairman. . A. Clement Silverman, M.D., Syracuse Vice-Chairman. . . . . Carl H. Laws, M.D., Brooklyn Secretary......Albert G. Davis, M.D., Utica

> Tuesday, May 9-10:00 A.M. Hotel Pennsylvania, Manhattan Room

Joint Meeting with the Session on Physical Therapy (See Session on Physical Therapy)

### Wednesday, May 10-2:00 P.M. Hotel Pennsylvania, Parlor 2

- "Two Score Years of Pediatrics"
  T. Wood Clarke, M.D., Utica
  Discussion: Edward J. Wynkoop, M.D., Syra-
- "Practical Experience with Congenital Heart 2. Disease" Hyman Green, M.D., Boston, Massachusetts (By invitation)
- "The Role of Developmental Diagnosis in Clinical Medicine" Arnold Gesell, M.D., New Haven, Connecticut (By invitation) Discussion: Harry Bakwin, M.D., New York

### Section on PUBLIC HEALTH, HYGIENE, AND SANITATION

Chairman . . . . Arthur M. Johnson, M.D., Rochester Vice-Chairman.... Vice-Chairman

Joseph P. Garen, M.D., Saranac Lake
Secretary

Frank E. Coughlin, M.D., Albany

### Tuesday, May 9-10:00 A.M. Hotel Pennsylvania, Parlor 2

"The Place of the Mass Survey in the Tuberculosis Control Program"

Herbert R. Edwards, M.D., New York Discussion: Ezra Bridge, M.D., Rochester; and William Siegal, M.D., Albany

"Indices and Standards for Child Health Services" Myron E. Wegman, M.D., New York (By

invitation) iscussion: William A. Holla, M.D., White Discussion: Plains; and Helen H. Owen, M.D., Altamont

"The Treatment of Early Syphilis with Fever and Mapharsen"

Nathaniel Jones, M.D., Jacksonville, Florida (By invitation)

"Public Health Education in the Control of Venereal Disease" Charles M. Carpenter, M.D., Rochester Discussion of both papers: Theodore Rosenthal, M.D., New York; and Evan W. Thomas, M.D., New York

### Scientific Exhibits

### Hotel Pennsylvania, New York, May 8-11, 1944

J. G. Fred Hiss, M.D., Chairman, Syracuse John DePaul Currence, M.D., New York

Harry Barowsky, M.D. New York Medical College Flower and Fifth Avenue Hospitals New York

GASTROSCOPT

A motion picture in kodachrome, demonstrating the mechanics of examining the interior of the stomach and illustrating the common gastric lesions encountered. From the Department of Medicine, Section of Gastroenterology, New York Medical College. Motion picture.

> Harry B. Biscow, M.D. New York

A SPECIAL GLOVE TO MEASURE THE TRUE CONJUGATE

A rubber glove which has a measure printed on the side of the index finger.

> Virgil S. Counseller, M.D. Mayo Clinic Rochester, Minnesota

Subgical and Postoperative Treatment of Vesicovaginal Fistulas

The exhibit demonstrates graphically the surgical repair of various types of vesicovaginal fistulas. It shows types of vesicovaginal fistulas encountered and the importance of the relative position of the fistulas to the (1) urethral sphincter, (2) ureteral meatus, (3) trigon, (4) fundus, and (5) upper urinary tract is emphasized. Proper postoperative care.

Joshua W. Davies, M.D. Woman's Hospital New York

Colored Life-Size Gynecologic Models Colored wax models of interest to the gynecologist and obstetrician.

> Charles E. Galloway, Maj., (MC), USA Northwestern University Chicago, Illinois

> > CERVICAL PATHOLOGY

Kodachrome pictures in natural color will be used to illustrate all of the various pathologic lesions of the cervix.

Lee A. Hadley, M.D. Syracuse Memorial Hospital Syracuse

X-RAY STUDIES OF THE SPINE

Some interesting congenital, traumatic, and pathologic conditions involving the spine. With ome additional films showing osteomyelitis treated by chemotherapy.

Demonstration of Fresh Pathologic Specimens

Arranged by Milton Helpern, M.D. New York

and a group of New York City pathologists

Benjamin Jablons, M.D.
Jules Cohen, M.D.
City Hospital
and
Goldwater Memorial Hospital
New York

Photoplethysmographic Studies on Cieculation

Charts showing photoplethysmograms obtained by the use of a photoelectric cell and light setup connected with a recording amplifying galvanometer showing peripheral pulse waves in normal persons and in individuals suffering from peripheral vascular disease, shock, hyperthyroidism, and cardiac conditions. Also the effect of vasodilator and vasoconstrictor substances. (Motion pictures)

John J. Moorhead, M.D.

New York Post-Graduate Medical School and
Hospital
New York

### FOREIGN-BODY FINDER

A portable device for localizing metallic foreign bodies, using a thin electromagnetic probe and an indicating meter by means of which metallic foreign bodies may be localized without requiring actual contact. May be used preoperatively as well as during the actual operation.

George H. Ramsey, M.D.
J. Douglas French, M.D.
William H. Strain, Ph.D.
The University of Rochester
School of Medicine and Dentistry
Rochester

### MYELOGRAPHY WITH PANTOPAQUE

A series of photographs and radiographs showing the technic of injecting and removing Pantopaque, a new absorbable liquid contrast medium for myelography. The exhibit will include normal myelograms, radiographs showing absorption of the medium, and a number of myelograms demonstrating typical proved defects.

Ludwig von Sallmann, M.D.
Karl Meyer, M.D.
Columbia University
College of Physicians and Surgeons
New York

Penicillin in Ophthalmology Graphs, drawings, colored photographs, and ringer, M.D., New York; Allister M. McClellan, M.D., New York; and J. Sydney Ritter, M.D., New York

Wednesday, May 10-2:00 P.M. Hotel Pennsylvania, Foyer of Keystone Room

 "Anomalies of the Upper Urinary Tract" John E. Heslin, M.D., Albany William A. Milner, M.D., Albany

- Intubated Ureterotomy"
   David M. Davis, M.D., Philadelphia, Pennsylvania (By invitation)
- "Advanced Carcinoma of the Prostate"
   A. Laurence Parlow, M.D., Rochester

Discussion of papers: Roy B. Henline, M.D., New York; William J. Kennedy, M.D., Gloversville; and John K. de Vries, M.D., New York

### **SESSIONS**

# Session on HISTORY OF MEDICINE

> Wednesday, May 10-4:00 P.M. Hotel Pennsylvania, Conference Room 3

- "The Progress of Medicine in New York City, and the Negro Physician" Gerald A. Spencer, M.D., New York
- "History of Public Health in Cattaraugus, Chautauqua, and Allegany Counties" Henry R. O'Brien, M.D., Charlottesville, Virginia (By invitation)
- "A Brief History of Dermatology in New York City—Its Share in the Progress of the Specialty in America" Paul E. Bechet, M.D., New York

General Discussion

# Session on PHYSICAL THERAPY

Tuesday, May 9--10:00 A.M. Hotel Pennsylvania, Manhattan Room Joint Meeting with the Section on Pediatrics

- "The Poliomyelitis Epidemic in Chicago in 1943"
   Edward L. Compere, M.D., Chicago, Illinois (By invitation)
   Discussion: Philip M. Stimson, M.D., New York; and William Bierman, M.D., New York
- "Good Posture in Children"
   Royal Storrs Haynes, M.D., New York
   Discussion: John R. Cobb, M.D., New York
   and William B. Snow, M.D., New York
- 3. "Treatment of Children with Cerebral Palsy"
  Veronica O'Brien, M.D., New York
  Discussion: Arno D. Gurewitsch, M.D., New
  York
- "The Role of Hydrotherapy in Rehabilitation"
   Hans J. Behrend, M.D., New York
   Discussion: Walter S. McClellan, M.D., Saratoga Springs; and Robert Muller, M.D., New
   York

م کیار میسید New York State Division
of the
Women's Field Army
American Society for the Control of Cancer
Kingston, New York

THE VALUE OF MICE IN CANCER

Medical Society of the State of New York Council Committee on Public Health and Medical Education

Oliver W. H. Mitchell, M.D., Chairman

CHARTS SHOWING ORGANIZATION AND ACTIVITIES OF THIS COMMITTEE

> Metropolitan Life Insurance Company Donald B. Armstrong, M.D. George M. Wheatley, M.D. New York

RHEUMATIC FEVER IN YOUNG PEOPLE

The prevalence and trends of rheumatic fever among those of younger ages; statistical data on factors in the cause and spread of the disease; data on the prognosis of the disease based on the continuous follow-up of nearly 3,000 children after an attack of rheumatic fever.

New York City Department of Health Ernest L. Stebbins, M.D., Commissioner

AIDING THE PHYSICIAN IN VENEREAL DISEASE WORK

Graphic presentation of the practical aids placed at the disposal of the practicing physician by the New York City Department of Health.

Bureau of Child Hygiene New York City Department of Health Leona Baumgartner, M.D., Director

THE SCHOOL HEALTH PROGRAM IN NEW YORK CITY A cooperative effort of teachers, nurses, physicians, and parents.

New York Diabetes Association, Inc.

SUMMER CAMP FOR DIABETIC CHILDREN

The activities at the summer camp for diabetic children, Camp Nyda, conducted by the New York Diabetes Association. Recreational, instructional, and research aspects. (Motion pictures)

New York State Association of School Physicians Michael Levitan, M.D. Rome

School Physicians' Activities

Charts showing various phases and aspects of the school physicians' activities.

Division of Cancer Control New York State Department of Health

Tomor Clinic Organization and Operation
The organization and operation of tumor clinics
is portrayed by means of photographs. The exhibit depicts clearly the personnel necessary for the
proper operation of clinics and shows the benefits
that the staff of the hospital can derive from such
participation. The operation of the clinic is illustrated pictorially, beginning with the referral of the
patient to the clinic, through to the final disposition

of the patient, no matter what type of therapy is used. A map shows locations of clinics in New York State. Aphorisms regarding tumor clinics and statistics supporting the need for additional clinics are presented.

### Division of Communicable Diseases New York State Department of Health

TROPICAL DISEASES OF POSSIBLE IMPORTANCE TO NEW YORK STATE

The exhibit attempts to present the pertinent clinical and epidemiologic facts concerning those tropical ailments which are being seen and will be seen in increasing numbers in our troops and civilians returning from the tropics. Emphasis is placed on those diseases in which there is some possibility that we may see spread of the infection to other residents of the State, malaria being the best example.

### Division of Public Health Education New York State Department of Health

PREVENTION OF ACCIDENTS

This exhibit depicts some of the most frequent causes of accidents in a home and on the farm. It gives definite information as to the prevention of such accidents.

New York State Department of Education Maude E. Nesbit, Medical Librarian New York State Medical Library

POSTERS, BOOKS, AND JOURNALS

A representative of the Library will be present to answer all questions concerning the services of the Library. The New York State Medical Library cordially urges all of the members of the Medical Society of the State of New York to use their Library in the Education Building, Albany. There are more than 51,000 volumes in the Medical Library, and over 500 periodicals are received currently. Special books are sent to the borrower on request, or selected literature on a given subject will be sent if requested. This service is extended, without charge, to physicians registered in New York State. The only obligation imposed on the borrower is the payment of the transportation charges both ways.

New York State Department of Labor Division of Industrial Hygiene Leonard Greenburg, M.D. New York

ACTIVITIES OF THE DIVISION OF INDUSTRIAL HYGIENE THE OF NEW YORK STATE DEPARTMENT OF LABOR

This exhibit outlines the medical, chemical engineering, and educational activities of the Division of Industrial Hygiene in the prevention of occupational disease in New York State. (Motion pictures)

New York State Commission for the Blind Ruth B. McCoy Alva Trotter

This exhibit stresses early diagnosis of glaucoma by picturing a fundus of an eye affected with acute glaucoma and a diagram of fields of vision in a normal eye.

other descriptive matter cover the small-scale production of penicillin, its penetration into the eye in local and systemic application, and the comparative effect of penicillin therapy and sulfonamide treatment in experimental intraocular infections with staphylococcus, pneumococcus, and Clostridium welchii. Also illustrated are studies on the treatment of experimental infections of the vitreous humor.

National Research Foundation for the Eugenic Alleviation of Sterility Frances I. Seymour, M.D. New York

### ARTIFICIAL INSEMINATION

The exhibit demonstrates the aims for the use of artificial insemination, its national economic importance, the medical indications for its use, suggested method for successful results, and the commonest pitfalls and reasons for failure. (Motion

> Henry K. Taylor, M.D. Teresa McGovern, M.D. Goldwater Memorial Hospital New York

### CARDIOANGIOGRAPHY

Films demonstrating the anatomy of the heart and large blood vessels, in health and disease, made in the living with 70 per cent diodrast.

> Abner I. Weisman, M.D. Jewish Memorial Hospital New York

A CLINICAL EVALUATION OF THE PROBLEM OF HUMAN STERILITY

Charts and graphs illustrating the causes of barren marriages, the diagnostic measures utilized, the results obtained, and the future needs of the physician handling such problems. One of the most interesting phases of this study is the revelation that the male is probably more frequently responsible for barrenness than is the female partner. (Motion pictures showing a new technic in uterotubal x-rays in the diagnosis of female sterility)

> Morton I. Berson, M.D. Downtown Hospital Pan-American Clinic New York

SURGICAL REPAIR OF TRAUMATIC DEFORMITIES

1. The use of cartilage grafts in reconstructing old depressed fractures of the frontal, maxillary,

malar, and nasal bones.

2. Full-thickness grafts, split-skin grafts, and pedicle flaps used in reconstructing facial scars and

contractures of extremities.

3. A new two-stage operation using free-skin grafts and autogenous costal cartilage grafts in building up an external ear.

The use of derma-fat-and-fascia grafts in building up depressions due to loss of soft tissues. (Motion pictures)

> Jacob Daley, M.D. New York

THE ROLE OF PLASTIC SURGERY IN OTOLARYNGOLOGY

Maxillofacial injury. Models showing reduction of molar-zygomatic fracture.

2. Traumatic septum. Models showing the effect on the physiology of the nose and methods of correction.

3. Models demonstrating alteration in air currents in nasal chambers, associated with nasal de-

4. Diagrammatic representation of the "typical rhinoplasty." Models illustrating the steps in the operation.

5. Analysis of deformities of the external nose.

Casts and photoanalysis.

6. Wet specimens demonstrating the anatomy of the nose.

7. Animated movies showing the "typical rhino-plasty" step by step.

8. Selectroslide showing details in technic of a "typical rhinoplasty."

A method to retain a correct septolabial angle following the elevation of the nasal tip in a rhinoplasty.

(Motion pictures)

Tibor de Cholnoky, M.D. Columbia University

New York Post-Graduate Medical School and Hospital New York

RECONSTRUCTIVE SURGERY IN CANCER

Illustrating reconstruction, repair, and plastic surgery of defects after radical operation for facial cancer. (Motion pictures)

> William E. Howes, M.D. Gregory L. Robillard, M.D. Alfred L. Shapiro, M.D. Brooklyn Cancer Institute Brooklyn

SALVAGE THERAPY IN ADVANCED CANCER

Presentation of a series of recurrent and advanced cancer cases treated surgically or radiologically in which cures or significant prolongation of life have been achieved.

### Samuel L. Scher, M.D.

### New York

### PLASTIC SURGERY

All categories in maxillofacial and plastic reparative surgery; plastic repair of (1) depressions and hemangioma of the eranium; (2) coloboma, ptosis, and ectropion of the eyelids; (3) all injuries and typical deformities of the nose; (4) different types of the plate and typical deformities of the nose; (4) different types of the plate and typical deformities of the ship cleft palate and harelip; (5) deformities of the chin and mandible, both prognathism and microgenia; (6) scars, burns, contractures, and depressions; (7) hypertrophied breast; (8) traumatic injury to the fingers (Dupuytren's contraction); (9) skin grafting, use of free-skin grafts and pedicle grafts (Padgett dermatome); (10) methods of suturing various wounds; (11) uses of refrigerated human cartilage; (12) new of the face. (12) nevi of the face.

The New York City Cancer Committee of the American Society for the Control of Cancer

THIRTY-YEAR EXHIBIT

Reviews of the activities of the American Society for the Control of Cancer during the thirty years of its existence.

### Technical Exhibits

### Hotel Pennsylvania, Ballroom Floor

A NOTHER "War Medicine" meeting finds the technical exhibits a great panorama of the latest in pharmaceuticals, medical books, nutritional products, instruments, and technics. More than ever before the physician will find in these exhibits a wealth of practical information and a wide variety of useful products to help him maintain the health of Americans at home, in industry, and the armed services. Following are brief descriptive items in alphabetical order giving a preview of the exhibits.

Abbott Laboratories, North Chicago (Booth 29).

A hearty welcome awaits you here, So in this booth be stepping To chat with Abbott men sincere Your knowledge to be pepping, On Pentothal and sulfa drugs, On vitamins and pollens, On Metaphens for killing bugs In ampules and in gallons.

Moral: Be sure to stop at 29

To view first hand the Abbott line.



The Alkalol Company, Taunton, Massachusetts (Booth 20), manufactures two famous preparations: Alkalol—a scientifically balanced alkaline, saline solution containing no glycerine and barely a trace of alcohol. It is hypotonic and a mucus solvent. Irrigol—an alkaline, saline douche powder which

makes a nontoxic, slightly astringent solution, useful as a vaginal douche, rectal enema, and for colonic irrigations.

American Hospital Supply Corporation, Chicago (Booth 4). Baxter Intravenous Solutions and blood, plasma, and serum equipment will be a feature of the American Hospital Supply Corporation's booth. Solutions in the famous Baxter Vacoliter will be displayed, along with such transfusion equipment as Transfuso-Vacs, Plasma-Vacs, and Centri-Vacs.

Trained staff members will be in attendance to explain and answer questions on all phases of the Baxter Intravenous Technic. Also on display will be many specialty items of importance to better hospital routine and service.

American Lecithin Company, Inc., Elmhurst, Long Island, New York (Booth 64), manufacturers and distributors of soybean lecithin products, will exhibit Lexco Wafers and other lecithin products. A seneral review will be presented of the use of these products in the treatment of psoriasis and other disorders of the fat metabolism. Bulletins, literature excerpts, reprints, and free samples will be distributed.

American Safety Razor Corp., Brooklyn, New York (Booth 75).

The Arlington Chemical Company, Yonkers, New York (Booth 108). Three valuable therapeutic agents are being featured by the Arlington Chemical Company: Aminoids, a protein hydrolyzate containing amino acids derived from beef, wheat, milk, and yeast, for treatment of protein deficiencies; and Arl-Cu-Fer and Pro-Cu-Fer, two new hematinics for the treatment of iron deficiency anemias.

The Armour Laboratories, Chicago (Booths 26 and 27), feature an interesting clinical display of thyroid deficiencies by means of wax models. The new Armour book, The Thyroid Gland and Clinical Application of Medicinal Thyroid, is available to members of the New York State Medical Society who visit this exhibit.

W. A. Baum Co. Inc., New York (Booth 41), will have on display all of the latest models of the Baumanometer—the New Kompak, the 300, the Wall, and the Standby. An invitation is extended to the doctors in attendance to bring in their Baumanometer for checking, minor repairs, and replacements.

Becton, Dickinson & Co., Rutherford, New Jersey (Booth 38), will feature a full line of Yale-Luer-Lok syringes and a new outfit for introducing continuous caudal analgesia. This outfit includes the new needle as suggested and used by Drs. Hingson and Edwards of the U.S. Marine Hospital on Staten Island.

The Best Foods, Inc., New York (Booth 39), is exhibiting and sampling Nucoa, the wholesome, nutritious vegetable margarine, which contains over 9,000 units of vitamin A to the pound. Highlighted, also, are the fine flavor and texture of Nucoa and the increasingly important place of vitaminized margarine in the National Nutrition Program. Miss Elsie Stark, Director of Consumer Education, will be in charge of the booth.



Bilhuber-Knoll Corp., Orange, New Jersey (Booth 101). Our "Council Accepted" medicinal chemicals find an important place in wartime medicine because of their proved effectiveness and dependability. Metrazol—respiratory and circulatory restorative; Theocalcin—di-

uretic and myocardial stimulant; and Dilaudid—

National Society for the Prevention of Blindness Committee on Glaucoma Mark J. Schoenberg, M.D., Chairman

New York GLAUCOMA

Presenting charts denoting frequency of glaucoma, together with pathologic and diagnostic aspects of the disease.

Tonometer checking procedures will be included.

National Gastroenterological Association Anthony Bassler, M.D., President New York

AMEBIASIS AND ITS TREATMENT Photographs and motion pictures.

National Hospital for Speech Disorders James S. Greene, M.D. New York

TREATMENT OF VOICE AND SPEECH DISORDERS AT THE NATIONAL HOSPITAL FOR SPEECH DISORDERS

Photographs illustrating admission procedures and diagnostic and therapeutic measures; also pathologic conditions associated with various voice and speech defects. Recordings demonstrating these various voice and speech defects will be played.

National Tuberculosis Association Charles E. Lyght, M.D. Northfield, Minnesota

Mass Chest X-Raying
"X-ray finds tuberculosis early—listening finds it

late." The exhibit contrasts for the doctor the good results of using the x-ray and the eye as compared with the poor ones when only the ear and the stethoscope are relied upon. Four useful x-ray screening methods are shown, as well as typical early and advanced lesions.

"Two Roads to the Family Physician"—the fast Road that leads industrial survey cases and contacts through the x-ray room straight to the doctor's office, and the slow Road that meanders through delay, early symptoms, quack remedies, and more delay, perhaps leading to the physician—but too latel

War Manpower Commission

New York State Procurement and Assignment
Service

Joe R. Clemmons, M.D., Chairman

PROCUREMENT AND ASSIGNMENT SERVICE FOR PHYSICIANS

Dr. Clemmons or his associates will be present to discuss problems of progurement and assignment of physicians during the present emergency.

Halloran General Hospital

R. C. De Voe, Col., (MC), USA Commanding Officer

The setup of the Halloran General Hospital will be presented. Standardized procedures will be discussed. The importance of certain directives relative to surgical management of various injuries and other surgical conditions will be explained.

# RCA INVITES

# YOU

to see the new model

### RCA ELECTRON MICROSCOPE

which will be on exhibition at Room 621

Hotel Pennsylvania, New York

May 8-11

All persons attending the Annual Meeting of the Medical Society of the State of New York will be especially welcome at this exhibit.

An RCA representative will demonstrate and explain the instrument, its powers and operation, and will answer your questions.

If you cannot be present at this exhibit, your inquiries should be addressed to Electron Microscope Section, Radio Corporation of America, Camden, N. J.



### RADIO CORPORATION OF AMERICA

RCA VICTOR DIVISION · CAMDEN, N. J.

Leads the Way . . In Radio, Television, Tubes, Phonographs, Records, Electronics

analgesic and cough sedative, are receiving increased use by the armed forces, by other government agencies, and in civilian practice.

Ernst Bischoff Company, Inc., Ivoryton, Connecticut (Booth 90), will exhibit Lobelin-Bischoff respiratory stimulant; Sas-Par, effective in the psoriasis; of Anayodin. amebacide; Diatussin, established antispasmodic: Viscysate, hypertensive. Also introducing to the medical profession Aquinone-Bischoff, a watersoluble preparation of menadione itself, in ampules and tablets.

The Borden Company, New York (Booth 111). Borden's distinctive formula foods, scientifically designed for infants, are on display at Booth 111. Visit us there to see our complete line-Biolac, Dryco, Mull-Soy, Beta Lactose, Klim, and Merrell-Soule Powdered Milks.

Brewer & Company, Inc., Worcester, Massachusetts (Booth 96), will feature a line of ampules. Among the items in this group will be shown our new Ether-in-Oil, used in the treatment of bronchial asthma. Another product is our vitamin D ampule of 400,000 units, called Hi-Deratol, which many physicians are using to supplement their medication in the treatment of calcium and phosphorus metabolism upsets. Incidentally, Hi-Deratol ampules are noted for their high potency of vitamin D. Our representatives will be glad to discuss with physicians the merits of other Brewer products, such as Thesodate, Luasmin, EnKIde, etc.



Well-Burroughs come & Co., Inc., New York (Booth 115), presents a representative group of fine chemicals and pharmaceutic preparations, together with new and important therapeutic agents of special interest to the medical profession.

Cambridge Instrument Company, Inc., New York (Booth 78). The invaluable help which electrocardiograms provide for physicians in military, industrial, and civilian practice makes the Cambridge Instrument Company exhibit of cardiac diagnostic instruments particularly timely. They will feature, as part of a complete exhibit of cardiac diagnostic instruments, the compact, lightweight, portable "Simpli-Trol" model Electrocardiograph-Stethograph that produces electrocardiogram and stetho-gram separately or simultaneously. Cambridge Electrocardiographs for large or small hospital, research laboratory, clinic, or private office will also be demonstrated.

Camel Cigarettes, New York (Booths 31 and 32). will exhibit large detailed photographs of equipment used in comparative tests of the five largest-selling brands of cigarettes. Dramatic visualization of nicotine absorption in the human respiratory tract from cigarette smoke will be demonstrated. International news with the Camel Cigarette Trans-Lux "Flash Bulletins" may be seen while you enjoy a supply of slow-burning Camel Cigarettes.

The Cameron Heartometer Company, Chicago and New York (Booth 12), is showing the improved Heartometer, a scientific precision instrument for accurately recording systolic and diastolic blood pressures. It also furnishes a permanent graphic record of the pulse rate, the nervous functioning of the heart, and the myocardial strength, as well as the functioning of the valves. The Heartometer clearly reveals heart disturbances in both early and advanced stages and is of great value in checking the progress of medication and treatments.

Cameron Surgical Specialty Company, Chicago and New York (Booth 89). See the Cameron Flexible Gastroscopes and Cavi-camera, the new Rosi Coagulo-Sigmoidoscope, Bronchoscopes, Esophagoscopes, Laryngoscopes, Binocular Prism Loupe, Mirrolite, Color Flash Clinical Camera, Magniscope, and other new developments in electrically lighted diagnostic and operating instruments. Electrosurgical units will also be on display. New York Sales Agent, 250 West 57th Street, New York City, convenient for service at all times for doctors in the Greater New York area.

S. H. Camp & Company, Jackson, Michigan (Booth 119), will display a complete line of Camp Anatomical Supports for prenatal, postnatal, visceroptosis, sacro-iliac, hernia, and other specific conditions. Experts from the Camp staff will be in attendance to answer questions pertaining to the scientific application of these supports and to advise regarding the availability of them in authorized service departments of stores throughout the country.

Canadian Radium & Uranium Corporation, New York (Booth 17). A visit to this exhibit will remind medical men that all needs for radium in the Western Hemisphere can now be supplied wholly within this Hemisphere. High-purity radium is available to the medical profession in any form and any type of container. A special exhibit is devoted to the new Alpha Ray Therapy by utilization of Radon in ointment. For further interesting details, call at Booth 17.

Carbisulphoil Company, Dallas, Texas (Booth 86) manufacturers of Foille, an antiseptic, analgesic emulsion indicated in the field of burns and wounds. Foille treats a burn as a wound, effecting almost immediately a marked control of pain and materially mitigating first shock. The formation of a soft coagulum over denuded areas, in contrast to a tough, tannic acid eschar, permits needed suppuration and drainage when required; free mobility of joint creases and extremities is afforded to reduce contracting scars. Distributed through wholesale druggists and surgical supply and first-aid houses.



Carnation Company, Oconomowoc, Wisconsin (Booth 116). You are invited to visit the Carnation Company's booth, where you will see an unusual reproduction of the Carnation Milk Farm and find presented some interesting information on the various uses of Irradiated Carnation Milk for infant feeding, child feeding, and general diet purposes.

Valuable literature will be available for distribution.

[Continued on page 800]





# Diethylstilbestrol

CHEPLIN'S DIETHYLSTILBESTROL is the most potent of the stilbene compounds described up to the present time and its physiologic activity duplicates practically all the known actions of the natural estrogens.

DIETHYLSTILBESTROL is indicated

for estrogenic therapy in menopausal symptoms, senile vaginitis, kraurosis vulvae and gonorrheal vaginitis of children. Also suppresses painful engorgement of the breasts in the puerperium and inhibits lactation under certain conditions. Literature on request.

### DIETHYLSTILBESTROL

supplied for intramuscular use in ampules of 1 cc. containing:

0.2 mg. 0.5 mg. 1.0 mg. 2.0 mg. 5.0 mg.	}	in boxes of 6, 12, 25 & 100

in vials of 30 cc. containing 0.5 mg. per cc.



# CHEPLIN BIOLOGICAL LABORATORIES, INC.

(Division of Bristal-Myers)
Syracuse, New York

[Continued from page 798]

Chatham Pharmaceuticals, Inc., Newark, New Jersey (Booth 3). Koagamin, a safe, reliable, inexpensive, and rapidly effective hemostatic for parenteral use in capillary and venous bleedings, will be shown and full information and literature will be available. Also Aluminoid Capsules, the easy-to-take, easy-to-carry, and less constipating form of aluminum hydroxide, will be available in sample form, and a demonstration of its great dispersion and prolonged suspension will be made.



Ciba Pharmaceutical Products, Inc., Summit, New Jersey (Booth 55). Physicians are cordially invited to visit Booth 55, where a Ciba representative will answer questions regarding our specialties and discuss in de-

tail our newest preparations: Privine Hydrochloride, a powerful nasal vasoconstrictor with a prolonged action; and Metandren Linguets, newest form of Metandren, most potent androgen available for oral use.

The Coca-Cola Company, Atlanta, Georgia (Booth 28), is planning to and hopes to be able to serve ice-cold Coca-Cola to the delegates with our compliments during the convention.

The Cream of Wheat Corporation, Minneapolis, Minnesota (Booth 68), will display both "Enriched 5-Minute" and "Regular" Cream of Wheat. "Zingl," stabilized wheat germ, will also be available for inspection. It is an economical, high vitamin germ that has been specially stablized to prevent rancidity.

The Denver Chemical Mfg. Co., New York (Booth 109), will exhibit Galatest, the dry reagent for the instantaneous detection of urine sugar, and Acetone Test (Denco), a dry reagent for the instantaneous detection of acetone in urine. These products, both simple, accurate, speedy, and economical, are being employed more extensively daily by hospitals, institutions, and private practitioners throughout the country.

Devereux Schools, Devon, Pennsylvania (Booth 23). Representatives at the booth will be glad to answer all questions regarding Devereux Schools, the eleven widely separated units which offer facilities for boys and girls who find it difficult to make an adequate social or scholastic adjustment in regular schools.

Doak Company, Cleveland, Ohio (Booth 18). Ampule Medication: Colloidal bismuth, calcium, iron, and sulfur. Dermatologic Preparations: For the treatment of acne, eczema, seborrhea, mycosis, and psoriasis. Prevention of contact dermatitis. Please call and register.

The Doho Chemical Corporation, New York (Booth 1), will feature an animated pathologic ear exhibit. The auralgan exhibit consists of a model of the human auricle four feet high, together with a series of twenty-four three-dimensional ear drums, modeled under the supervision of outstanding otologists.

Each of these drums depicts a different pathologic condition based upon actual case observation and has been prepared, in so far as possible, with strict scientific accuracy so as to be highly instructive and interesting to all physicians.

Effervescent Products, Incorporated, Elkhart, Indiana (Booth 94), will give a demonstration of urine sugar analysis by the new Clinitest Tablet Method—simple, reliable, fast, single tests made in less than one minute; a sensitive qualitative test giving dependable quantitative estimations up to 2 per cent. The Clinitest Tablet Method is a copper reduction one. The tablets generate their own heat; therefore neither gas nor alcohol flame is required.

Endo Products, Inc., Richmond Hill, New York (Booth 37), manufacturers of pharmaceutic specialties and pioneers in the development of medications for ampule use, presents an interesting exhibit. Among the products exhibited are Hycodan, a new antitussive with demonstrable advantages over codeine, to which it is chemically related; Triketol, a specially processed bile-acids preparation, and Endoglobin Tablets, a recently released hematinic.

Fairchild Bros. and Foster, New York (Booth 6).

C. B. Fleet Co., Inc., Lynchburg, Virginia (Booth 15). The medical profession is cordially invited to visit Booth 15, which displays Phospho-Soda (Fleet), the buffer saline eliminant. Particular emphasis is given to the use of Phospho-Soda (Fleet) in wartime industrial medicine and also to its use in the military and public health service. Our representatives from your district will greet you.

General Electric X-ray Corp., Chicago (Booth 56). Although working around the clock to meet production schedules essential to the war effort, the General Electric X-ray Corporation is not unmindful of the need for expert maintenance service by owners of x-ray and other electromedical equipment. G. E.'s Periodical Inspection and Adjustment Service continues to function, now as in the prewar years, through branch offices and regional service depots throughout the country. Stop in at the G. E. exhibit for further information on "P. I. and A." Service. At the same time you can obtain interesting facts about the use of photoroentgenography in mass x-ray chest surveys and see a demonstration of the G-E Orthostereoscope, for viewing stereoscopic 4- by 5-inch chest photoroentgenograms.



Gerber Products Company, Fremont, Michigan (Booth 36). Gerber's Cereal Food and Strained Oatmeal are enriched and precooked. We invite your inspection of the literature and the display of the Gerber Foods.

Otis E. Glidden & Co., Evanston, Illinois (Booth 98). You are cordially invited to visit ZymenoL Booth

[Continued on page 802]

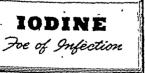


## Efficiency of Iodine

\* Iodine long has been an outstanding germicide for preoperative use, for wound therapy, and for sterilization of common cuts, scrapes and scratches. It is so thoroughly accepted that its high efficiency is, perhaps, only casually appreciated by surgeons and physicians overworked by present day demands.

lodine has been clinically demonstrated to be non-irritating when properly applied. It is customarily used in dilutions of 7%, 31/2% or 2% but dilutions as low as 1% have been shown to be effective in preventing infection.

Iodine has particular power to enter the skin follicles and is effective in the presence of natural barriers of the skin itself. It is bactericidal in concentrations which are not toxic to the tissues.



Iodine Educational Bureau, Inc. 120 Broadway, New York 5, N. Y.



# REVOLUTIONARY

### MOULDED TO THE INDIVIDUAL REQUIREMENTS OF EACH FOOT

The plastic arch built into Conformal shoe has revolutionized corrective shoe fitting. It eliminates guess work, assures absolutely accurate relief from strain in even the most acute cases. The best endorsement of Conformal shoes is that men and women leaders in the medical profession wear as well as prescribe them. Recommend Conformal shoes with utmost confidence-ideal for prenatal care. Your prescriptions faithfully followed by experienced fitters at:

Accepted for advertising by the Journal of the American Medical Association



Body weight forces softened plastic away from ball and heel, UP under arches where it solidifies to form balanced, personalized support.

Nancy Nuyens 22 West 43rd St. B. Nelson, Inc. 10 Eost 39th St. Conformal Shoes 25 West 35th St. Conformal Shees 838 Broadway D. Lalor 215 Broadway

Schoen's Vanity Shoes 1293 Wilkins Ave.

Dakta-Matic Shoes 5 Delancey St.

Brooklyn

Conformal Shoe Store 302 Livingston St.

741 Front St

Hempstead, L.I. Nassau Surgical Co.

Conformal Footwear Co.,  Division of International Shoe Company, St. Louis 3, Ma Please send me, without abligation, booklet explaining scientific principle of Conformal Shoe fitting.
Dr
Address
CityState

### [Continued from page 800]

98. Obtain the latest information on ZymenoL, the brewers' yeast emulsion that provides a twofold natural therapy, equally effective in either the irritable, unstable, or stagnant bowel without catharsis, artificial bulkage, or large doses of mineral oil.

The Gradwohl Laboratories, St. Louis, Missouri (Booth 87), will display facts regarding their full laboratory service, viz.: (1) school for the training of laboratory technicians; (2) full line of laboratory reagents; (3) a monthly periodical called the Laboratory Digest—a journal of current laboratory literature carefully and critically compiled; (4) a laboratory reference book—Clinical Laboratory Methods and Diagnosis, third edition, two volumes (Mosby, publisher). This is a standard laboratory guidance book published about every five years. Special attention is given in the display to grouping serums—anti-A, anti-B, absorbed B (to differentiate A<sub>1</sub> from A<sub>2</sub> bloods), anti-M, anti-N, and anti-Rh. This organization aims to provide physicians and laboratories with every possible aid in solving their laboratory problems.

Grant Chemical Co., Inc., New York (Booth 65), are well known as makers of "Specialties for Diseases of the Heart and Blood Pressure." Every type of cardiovascular therapeutic medication is included in the Grant list of products, old standbys such as aminophylline, caffein sodium benzoate, and camphor in oil through such Grant specialties as Diurbital, Digicotin, and Pancreatic Hormone (Grant). Grant invites physicians to visit Booth 65, which will feature Diurbital for the hypertensive cardiac patient. Samples and literature will be available.

Hanovia Chemical and Manufacturing Company, Newark, New Jersey (Booth 2). Ultraviolet filter jacketed Safe-T-Aire lamps for the destruction of micro-organisms in the air will be a feature of our exhibit. A complete line of new model self-lighting lamps for orificial and body irradiation will be on display. Courteous representatives at your service.

Charles C. Haskell & Co., Inc., Richmond, Virginia (Booth 113).

H. J. Heinz Company, Pittsburgh, Pennsylvania (Booth 16), wishes to acquaint you with the eleventh edition of Nutritional Chart, Nutritional Observatory, and Special Dietary Foods Book. Special feature—Your Baby's Diary and Calendar. Physicians practicing pediatrics and those prescribing soft diets will be especially interested in Heinz Strained and Junior Foods and our new Pre-Cooked Cereal Food.

Hoffmann-La Roche, Inc., Nutley, New Jersey (Booth 112). Pharmaceutic prescription specialties of rare quality, produced at Roche Park, where vitamins are made by the ton, will be exhibited. Syntropan, the antispasmotic that is replacing belladonna, will be a featured product. The medical profession's interest in the many uses of the versatile Prostigmin and other scientific accomplishments will be satisfied by Hoffmann-La Roche representatives who will be in attendance to discuss clinical problems.

Holland-Rantos Company, Inc., New York (Booth 107). (1) The universally known Koromex contraceptive specialties will be on display, including the new Koromex Set Complete, a combination package ideally suited for either prescription or dispensing purposes. (2) The latest in nonallergic pillow cases and mattress covers will be shown along with a complete line of waterproof protective garments and beddings. (3) Be sure to ask our representative about Tincture Nylmerate, a patent germicide for preoperative skin treatment and first aid prophylaxis. (4) Samples of Rantex Masks, the ideal substitute for gauze masks, may be had for the asking.

Hollister-Stier Laboratories, Wilkinsburg, Pennsylvania (Booth 21), specialize in personalized allergy service. A visit to this booth will provide you with a pollen survey for your area and full information on their complete service in allergy. On view are enlarged, colored natural photographs of many plants that cause hay fever. Competent company representatives will welcome you and supply information.

Horlick's Malted Milk Corporation, Racine, Wisconsin (Booth 5), is exhibiting Horlick's Malted Milk, in both natural and chocolate flavors, powder, and tablets. Members of the profession are especially invited to enjoy a delicious drink of Horlick's Malted Milk fortified with vitamins A, B<sub>1</sub>, D, and G. Our representatives will be glad to answer any inquiries and explain the qualities of our products.

Hynson, Westcott & Dunning, Baltimore, Maryland (Booth 95), will have an exhibit featuring Mercurochrome, Thantis Lozenges, Sterile Shaker Packages of Sulfanilamide, which the company developed primarily for military use, and various pharmaceutic specialties of their manufacture. There will also be a display of diagnostic apparatus and ampule solutions which have been worked out in their laboratories in cooperation with physicians. Competent representatives will be in attendance to demonstrate and to provide information regarding these products. Literature will be available to physicians who are not already familiar with the products exhibited.

International Vitamin Corporation, New York (Booth 13), cordially invites all attending physicians to stop at their booth and get acquainted. I.V.C., one of the leading ethical vitamin concerns in the country, is presenting up-to-the-minute developments in the B complex vitamin group. This is accomplished with the nid of continuous, colorful, and informative charts and illustrations. Physicians will be made welcome at the I.V.C. booth by well-informed representatives.

Jones Metabolism Equipment Co., New York-(Booth 85), invites you to see the original wateubss: metabolism apparatus. The exclusive features of the Jones include a double slope tracing which eliminates the possibility of technical errors, a simplified and accurate slide rule for calculations, and a lifetime guarantee for accuracy greater than 99 per cent. The twenty-three years of experience-

# Appreciated BY THE ULCER PATIENT

GREATER AND MORE PROLONGED
ACID-NEUTRALIZING POWER

STOPS PAIN PROMPTLY...
HOLDS IT IN ABEYANCE...
PREVENTS RECURRENCE AT NIGHT

A True Magma

No Aluminum
Hydroxide Used
to Hold It In
Suspension; Hence
No Undesirable
Astringency,
No Constipation

Chloride depletion, astringent action, and the resultant undesirable constipation which beset so many other antacids are absent from Magmasil therapy. Hence patient cooperation is assured and rapid clinical results ensue in peptic ulcer, gastritis, hyperchlorhydria.

Magmasil, a palatable, stable aqueous suspension of hydrated magnesium trisilicate, neutralizes 86 cc. of N/10 HCl per teaspoonful. This action is exerted over fully four hours, permitting of fewer administrations, simplifying treatment.

Because of this prolonged action, the 11:00 p.m. dose usually enables the patient to sleep comfortably through the night.

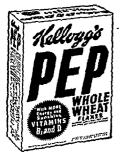
Magmasil therapy permits of early liberalization of the diet, a feature much appreciated by the patient, and leads to rapid healing and remission.

Physicians are invited to send for samples and a complimentary copy of the brochure "Twenty Years of Progress in Ulcer Therapy."



### [Continued from page 802]

of the Jones Metabolism Equipment Company have made it possible for them to produce a foolproof, simple, and accurate machine. Ask to see "Windar."



Kellogg Company, Battle Creek, Michigan (Booth 61). Kellogg's cereals are either whole grain, natural, restored, or fortified. Kellogg's Pep is fortified with additional vitamins B<sub>1</sub> and D. One serving (1 ounce) furnishes one-fourth the minimum daily requirement for adults for thiamin, and sufficient vitamin D to meet all daily requirements for that vitamin. Corn Flakes and Rice Krispies, con-

tributing whole grain values of thiamin, niacin, and iron, may be included freely in wheat-free and low residue diets.

Charles B. Knox Gelatine Co., Inc., Johnstown, New York (Booth 34). Our exhibit will feature the medical and dietary uses of Knox Plain Sparkling Gelatine. Attendants in the booth will gladly discuss the protein value of gelatine and explain how the production and laboratory control makes Knox Gelatine. a quality product essential for special dietary use. Literature, including dietaries and recipes, is free.

Lederle Laboratories, Inc., New York (Booth 48), will feature Child Health Immunization products, penicillin, and sulfadiazine. The same husky baby who is to be featured all over the country in the Lederle Spring Child Health Immunization campaign will be spotlighted in the bull's-eye circular panel. Color transparencies of the new Lederle Penicillin Building at Lederle Laboratories in Pearl River, together with progressive pictures of penicillin molds, will illustrate one side panel. The other panel—on sulfadiazine—will be similarly illustrated with color transparencies. Lederle's staff representatives will be present to answer questions and supply literature and samples on Lederle products—their complete line of vitamins and Cerevim, as well as the featured products mentioned above.

Libby, McNeill & Libby, Chicago (Booth 11). Libby's strained and homogenized baby foods are featured at the Libby booth. Physicians are invited to stop and discuss new findings on the greater availability of iron and the ease of digestion of Libby's Council-accepted foods for babies.

Liberty Vitamin Corp., New York (Booth 65), supplies one of the most comprehensive lists of standard and specialty vitamin preparations in the country. Booth 65 will feature Liberty's Provimin, which provides high potencies of eight vitamins, and eight minerals, as well as Deacin for arthritis, which combines the therapeutic usefulness of massive potencies of vitamin D (Whittier Process) and vitamin C, an essential for the integrity of connective tissues. Literature and samples of Provimin and Deacin will be supplied.

The Lievel-Flarsheim Company, Cincinnati, Ohio (Booth 79), will display the world-famous Hypertherm for artificial fever therapy and Bovie Units for major and minor electrosurgery. You are invited to stop and talk to experienced and qualified representatives who will be happy to discuss the modern applications of medical electronics.

Eli Lilly and Company, Indianapolis, Indiana (Booth 120), will feature an anatomic model illustrating the technics of caudal and spinal anesthesia. Lilly products will be on display, and medical service representatives will be present to assist visiting physicians in every possible way.

J. B. Lippincott Company, Philadelphia (Booth 45), headlining a new one-volume War Edition of Thorek's Modern Surgical Technic! Of the many outstanding Lippincott books displayed, be sure to see those on such timely subjects as syphilology, industrial health, proctology, skin grafting of burns, dermatology, surgery of the ambulatory patient, surgical errors and safeguards, and roentgen diagnosis.

Loeser Laboratory, Incorporated, New York (Booth 42). Specializing exclusively in the manufacture of parenterally applied medication, the name "Loeser" is a guarantee of accuracy, sterility, therapeutic potency, and freedom from pyrogens. An extensive group of fine ampules will be on display at the Loeser exhibit.

The Maltine Company, New York (Booth 118), is exhibiting the old as well as the new. Such fine products as Maltine with Cod Liver Oil, Malto-Yerbine, and Neoferrum have enjoyed favorable recognition for many years. They have been joined by Tedral, Proloid, Depancol, Jeciron B, and other developments of The Maltine Company's research laboratories. A cordial invitation is extended to you to visit Booth 118, where descriptive literature and samples are available.

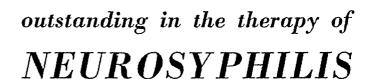
T. H. McKenna, Inc., New York (Booths 43 and 44), are displaying the more recent and representative books of all major publishers. This affords an unusual opportunity to examine all new books, compare competitive to your needs.

courteous, impartial attention. Books of an publishers may be purchased on one account. Monthly payments may be arranged if desired.

McNeil Laboratories, Philadelphia (Booth 104). Members and guests of the Medical Society of the State of New York are cordially invited to visit Booth 104. A number of products that are of particular interest to physicians, such as Digitalis Duo-test and Thyroid Duo-sayed will be shown. Trained representatives will be present to describe the outstanding characteristics of these and other McNeil pharmaceuticals to members of the medical profession.

Mead Johnson & Company, Evansville, Indiana (Booth 57). "Servamus Fidem" means "We Are Keeping the Faith." Almost every physician thinks of Mead Johnson & Company as the maker of

[Continued on page 806]





Among the several therapeutic agents which have proved to be of value in the treatment of neurosyphilis, Tryparsamide Merck has been of outstanding service. Its use in conjunction with artificial hyperpyrexia affords a relatively high incidence of clinical and serologic remissions in cases of early dementia paralytica.

Tryparsamide Merck also has proved of value in the treatment of tabes dorsalis and meningovascular syphilis. It is economical for the patient, is easily administered, and has the advantages. if used alone, of not requiring hospitalization or change in the patient's daily routine. Furthermore, Tryparsamide Merck is available to the patient through the services of his physician.

Tryparsamide Merck is supplied in boxes of 5 ampuls, in three strengths: 1 Gm., 2 Gm., and 3 Gm. each; also in 50 Gm. bottles.

Illustrated brochure, Chemotherapy of Neurosyphilis, sent on request.



# TRYPARSAMIDE MERCK



An outstanding therapeutic agent in neurosyphilis

MERCK & CO., Inc. Manufacturing Chemists RAHWAY, N. J.

[Continued from page 804]

Dextri-Maltos, Pablum, Oleum Percomorphum, and other infant diet materials-including the new pre-cooked oatmeal cereal, Pabena. But not all physicians are aware of the many helpful services this progressive company offers physicians. A visit to Booth 57 will be time well spent.

Medical Film Guild, New York (Booths A and B). emphasizes its talking papers in this year's program of "Medical Films That Teach." Hospital and medical society program chairmen, now faced with depleted staffs because of the war emergency, who desire educational material for their meetings, find that Medical Film Guild's motion picture film-textbooks answer that important problem. Through grants for postgraduate instruction, these films are available at no charge to any hospital or medical society meeting and to the medical services connected with the armed forces of the United States. Exhibition is also included at no charge under this Exhibition is also included at no charge under this plan. Some of the available films are: "Inguinal Hernioplasty," "Asphyxia Neonatorum, "Nonoperative Treatment of Paranasal Sinusitis," "Otitis Media in Pediatrics," "A Clinic on Acute Mastoiditis," "Otoscopy in the Inflammations," "A Clinic on Sigmoid Sinus Thrombosis," "Pharmacology of Respiratory Stimulants," "Sutures Since Lister," "Amebiasis and its Treatment," and "A Clinic on Otitic Purulencies."

Merck & Co., Inc., Rahway, New Jersey (Booth 58). Physicians attending the Annual Meeting of the New York State Medical Society are cordially invited to visit the Merck booth. Literature will be available on Merck Medicinal Specialties and also on penicillin, the vitamins, and the sulfonamides. If you are interested in an inhalation anesthetic for short operative procedures, ask about Vinethene. It produces rapid induction of anesthesia and rapid, complete recovery with infrequent nausea or vomit-



The Wm. S. Merrell Com-Cincinnati, Ohio pany, (Booth 105), will feature several new and original products of Merrell Research, together with a number of well-known pre-

scription specialties of established usefulness in clinical medicine. Representatives in attendance will welcome your inquiries regarding the therapeutic application of any Merrell medicinal agents.

Philip Morris & Co. Ltd., Inc., New York (Booth 62), will demonstrate the method by which it was found that Philip Morris cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representatives will be happy to discuss researches on this subject, and problems on the physiologic effects of smoking.

National Live Stock and Meat Board, Chicago (Booth 7), invites you to visit their booth and view their nutrition material, much of which has been prepared during the last year. Both desk-size and classroom models of the Nutrition Yardstick will be displayed.

Nepera Chemical Co., Inc., Yonkers, New York (Booth 88), extends a cordial invitation to the members of the Medical Society of the State of New York to visit their booth. Representatives will gladly discuss urinary antisepsis with interested physicians, with particular reference to Mandel-amine, a chemical combination of mandelic acid and methenamine. Because of its increased effectiveness with comparatively small dosage in the treatment of urinary tract infections, Mandelamine offers the advantages of minimal by-effects and ease of administration.

Novocol Chemical Manufacturing Co., Inc., Brooklyn, New York (Booth 10), for thirty-three years has devoted its energies to the development of saler and more potent local anesthetics. We suggest that you investigate the reasons for the popularity that Menocaine solutions enjoy with the medical profession. Our anesthetic containers that permit the direct injection of sterile solutions into the tissues are a "must see" on the list of exhibits you plan to

Nutrition Research Laboratories, Chicago (Booths 51 and 52), will exhibit Ertron, high potency Whittier Vitamin D, used widely in the treatment of chronic arthritis. The new plastic models and transparencies pertaining to arthritis will be shown. All literature pertaining to the use of the product will be available to members and guests of the Society. Companion products of interest to the profession will also be exhibited.

Ortho Products, Inc., Linden, New Jersey (Booth 53). In addition to their recognized proprietaries, Ortho-Gynol, Ortho-Creme, and Ortho Diaphragus, Ortho Products is featuring several recent developments in pharmaceuticals. They are: Nexital for menopausal therapy, Nutri-Sal for use in selected cases of infertility, and Aci-Jel, an efficacious therapeutic vaginal jelly.



Parke, Davis & Company, Detroit (Booth 54). At this exhibit, which has been streamlined because of present wartime requirements, you will find many new and scientific pharmaceutic and biologic products. Included in

this display are such outstanding preparations as Phemerol, a relatively non-toxic and nonirritating germicide and antiseptic, vitamin products, sulfa drugs, despeciated antitoxins, and numerous other outstanding products of timely interest. Able and courteous members of the Parke, Davis & Company staff are in daily attendance to serve you.

Pet Milk Sales Corporation, St. Louis, Missouri (Booths 81 and 82). A complete display of material illustrating the time-saving Pet Milk services available to a large same saving the same saving same saving the same saving save saving savin available to physicians. Specially trained representatives will be in attendance to give you information about the production of Pet Milk and its use for infant feeding. Miniature cans will be given to physicians visiting the exhibit.

Pitman-Moore Company, Indianapolis, Indiana (Booth 19). You are cordially invited to visit the Pitman-Moore Company display. This exhibit will

[Continued on page 808]



# In the Dietary Adjustment

### DEMANDED BY FEBRILE DISEASE

During periods of acute febrile disease, dietary adjustment must be made to satisfy the change in nutritional demands. Protein requirements are increased 50 to 100 per cent, caloric expenditure is raised because of increased heat loss, and vitamin needs, especially those of the watersoluble groups, are greater. Only by meeting these altered requirements can recovery be hastened, can convalescence be shortened, and the usual lethargy reduced in severity and duration.

Designed to supplement the diet dur-

ing periods of increased metabolic activity, Ovaltine is a powerful weapon in preventing nutritional insufficiency during these periods. The abundantly supplied nutrients of this palatable food drink are quickly assimilated and metabolized. Its delicious taste makes it appealing even to the seriously ill patient who usually presents a feeding problem. And because Ovaltine greatly reduces the curd tension of the milk in which it is dissolved, it leaves the stomach promptly, rarely produces nausea or anorexia.

THE WANDER CO., 360 N. Michigan Ave., Chicago 1, Illinois



# Ovaltine

Three daily servings (11/2 oz.) of New Improved Ovaltine provide:

	Dry	Ovoltine			Dry	Ovaltine
	Ovaltine	with milk*			Ovaltme	with milk*
PROTEIN	6 0 Gm	31 2 Gm.	A HIMATIV		1500 I U.	2953 I U.
CARBOHYDRATE	30 0 Gm.	62.43 Gm.	VITAMIN D		405 I U.	480 I U.
FAT	2.8 Gm.	29 34 Gm.	THIAMINE.		.9 mg.	1 295 mg.
CALCIUM	.25 Gm.	1 104 Gm.	RIBOFLAVIN		.25 mg.	1 278 mg.
PHOSPHORUS .	.25 Gm	•903 Gm.	NIACIN		50 mg.	69 mg.
IRON	105 mg.	11.94 mg.	COPPER		.5 mg.	.5 mg.
*Each serving	made with	8 oz. milk;	based on average i	repo	rted values	for milk.

### [Continued from page 808]

be representative of our comprehensive line of pharmaceuticals and biologics. Of particular interest will be our new suspension of sulfathiazole, Magmoid Sulfathiazole, and several other recently announced additions to our list of products. Come, rest, and visit

Poloris Company, Inc., Jersey City, New Jersey (Booth 25) This exhibit will feature a display of the medicinal ingredients contained in Poloris Dental Poultice, to acquaint the members of the medical profession with the purpose of Poloris Dental Poultice; namely, local counterirritation for the emergency treatment of inflammation, congestion, or irritation of the teeth and gums

The Procter & Gamble Company, Cincinnati, Ohio (Booth 63) Visitors will be acquainted with the qualities of Ivory Soap which have resulted in Ivory's being recommended "by more doctors than all other brands of soap together" Copies of Ivory's popular booklet, "Bathing Your Baby the Right Way," prepared with the cooperation of a world-famous maternity center, will be available free of charge to visitors

The Radium Emanation Corporation, New York (Booth 59), will exhibit a wide variety of instruments and applicators used in modern radium therapy, including permanent and removable composite, leakproof Radon seeds. The advantage of these seeds will be demonstrated by magnified sections showing their constructions in detail

Rare Chemicals, Inc., Harrison, New Jersey (Booth 33). Eucupin, described as the local anesthetic—analgesic with "staying power" (aqueous and oil solutions, ointment, and suppositories). Other Rare products include: Arsenoferratose (palatable hematinic), Gitalin (digitalis preparation), Optochin HCl (specific in pneumococcic infections of the eye), Salysal (analgesic, antirheumatic), and Validol (sedative)

Riedel-de Haen, Inc., New York (Booth 93), are pacemakers of bile acid therapy. Decholin and Degalol initiated a new era in the treatment of biliary tract disorders. Physicians are cordially invited to Booth 93, where representatives of Riedel-de Haen, Inc., will be glad to discuss the wide range of clinical indications of these two chemically pure bile acid products

Ritter Company, Inc., Rochester, New York (Booths 46 and 47), is displaying many items of advanced medical equipment for progressive doctors, among which are. medical motor chair, ear, nose, and throat units, rest and relief stools, fluorescent lights, x-ray units, surgical cuspidors, sterilizers, compressors, and bone surgery engines. Ask for complete demonstrations

Sandoz Chemical Works, Inc., New York (Booth 106) The non-narcotic rehef of migraine with Gynergen (ergotamine tartrate) will be of interest to physicians Just released is Glysennid for atonic constipation—it contains sennosides A and B, crystalline glycosides recently isolated from senna leaves in the Sandoz Research Laboratories. Also

displayed are Cedilanid (lanatoside C), a stable crystalline glycoside from digitalis lanata and not present in purpurea; Syrup Neo-Calglucon, a palatable, highly concentrated preparation for oral calcium therapy readily absorbed from the digestive tract Other well-known Sandoz products include Bellergal, Belladenal, Bellafoline, Digilanid, Scillaren, Strophosid, Calglucon, and Neo-Calglucon

Saratoga Springs Authority, New York (Booth 117), again will serve at its booth Saratoga Geyser, the natural alkaline water bottled by the State at Saratoga Spa Literature descriptive of the wide range of treatments and therapies available at the Spa also will be distributed at the booth

Schering Corporation, Bloomfield, New Jersey (Booth 97) Representatives will be present to discuss the latest developments in endocrinology Estinyl Tablets, the new oral estrogen ethnyl estradiol, Oreton-F Pellets, and Priodax will be featured Estinyl, a derivative of the natural hormone alpha estradiol, is the most potent oral estrogen available today Priodax is the new Schering oral opaque material for cholecystography

Julius Schmid, Inc., New York (Booths 91 and 92) You are invited to view the Kodachrome illustrating a simplified method of inserting and properly seating a vaginal diaphragm. These Kodachromes have been prepared from anatomic drawings based on an x-ray study of a vaginal diaphragm in postion. A color chart for use in instructing patients is available to physicians.

G. D. Searle & Co., Chicago (Booth 60), will show a number of new products of Searle Research which have contributed so much to the recent armamentarium of the physicians Products such as Searle Aminophyllin, Metamucil, Ketochol, Floraquin, Gonadophysin, Tetrathione, Pavatrine, and Diodoquin are results of this research, which has been greatly expanded in the new Searle Laboratories An illustration of the new laboratories will be featured in the exhibit

Sharp & Dohme, Inc., Philadelphia (Booth 50), will feature their new sulfonamide, Sulfamerazine, and also Sulfasuvidine, Lyovac Normal Human Plasma, Tyrothricin Concentrate (Human), Depropanex, Delvinal Sodium, Propadrine, Hydrochloride products, and Lyovac Tetanus Antitovin, Bovine Capable, well-informed representatives will be on hand to welcome all visitors and furnish information on Sharp & Dohme products

J. R. Siebrandt Manufacturing Co, Kansas City, Missouri (Booth 14) The new Clayton Transfixion Splints are now offered to the medical profession by Siebrandt These splints are the results of years of experimental research and development in collaboration with Dr Charles F Clayton of Fort Worth, Texas In the past seven years he has used this method of external fixation successfully in over 500 cases for both open and closed reductions. They have many advantages over other type transfixion splints Built of plastic, transparent to x-ray—simple in construction and extremely light in weight—have no complicated mechanism to adjust—climinate plaster cast and reduce cost and

[Continued on page 810]

# Ninth Annual Postgraduate Institute

### THE PHILADELPHIA COUNTY MEDICAL SOCIETY

Bellevue-Stratford Hotel, Philadelphia

May 2, 3, 4 and 5, 1944

Subject: MODERN DIAGNOSIS AND TREATMENT

Four Full Days of Lectures Technical and Scientific Exhibits Special Evening Meetings

Registration Fee-\$5.00 for entire course

Physicians in the Armed Forces Admitted Free

Program Furnished on Request

George P. Muller, M.D., Director

301 South 21st Street

Philadelphia 3, Pa.

# EUTIC TEAMWORK

# Vitamin "B" Complex fortified with Vitamin "C"

Research has shown that vitamins B and C appear to work as a team in effecting beneficial changes in cellular physiology. This was clinically manifested by improvement in pathology of the upper respiratory mucosa and the retina when the two vitamins were given together. When only one was used, this

favorable reaction did not occur.

Vitamin "B" Soluble (Walker) is derived from brewers yeast—its potency increased so that three capsules meet the minimum daily needs for vitamin B factors recommended by the U.S. Government.

Professional samples sent on request to Myron L. Walker Co. Inc., Mount Vernon, New York.

### VITAMIN "B" SOLUBLE (WALKER)



[Continued from page 808]

time of treatment. The exhibit will also include a complete line of bone instruments and fracture equipment, including the Davidson Director for hip nailing and the Goodwin Bone Clamp, which simplis fies the technic for open reduction when wiring long bone fractures.

Singer Sewing Machine Co., New York (Booths 8 and 9). Specially trained demonstrators will exhibit the Singer Surgical Stitching Instrument. This instrument, which was developed in close cooperation with the surgical profession, has attracted much attention at medical conventions and clinical trials have definitely proved its success and practicability. All doctors, nurses, and hospital staff members are cordially invited to see this unique contribution to surgery. Motion pictures of operations showing the instrument in use will be shown by the Medical Film Guild, Booths A and B. Free literature describing the instrument in detail will be available.



Smith, Kline & French Laboratories, Philadelphia (Booth 49). Benzedrine sulfate tablets and Paredrine-Sulfathiazole Suspension are featured at this exhibit. The potent central nervous

stimulation of benzedrine sulfate offers, throughout a wide range of application, "a therapeutic rationale which, in its very efficiency, cuts across the old categories." Paredrine-Sulfathiazole Suspension is the only vasoconstrictor-sulfonamide combination which combines prolonged bacteriostasis, nonstimulating vasoconstriction, and therapeutically ideal pH. Not a solution, but an aqueous suspension of "micraform" crystals of free sulfathiazole, it produces no irritation, no stinging, and no hyperemia. Our especially trained professional representatives will be glad to discuss with you the potentialities and possible indications of our products in your own practice.

Spencer Incorporated, New Haven, Connecticut (Booth 24). An interesting exhibit featuring individually designed supports for abdomen, back, and breasts. Spencer supports are prescribed as an aid to treatment for the following: hernia; visceropand to decading for the following: nernia; visceroptosis with symptoms; postoperative; back conditions; maternity and postpartum; obesity; movable kidney; breast conditions; and certain forms of heart disease. Samples are on display and trained representatives will be available to answer your questions. questions.

E. R. Squibb & Sons, New York (Booth 114). Physicians attending the meeting of the Medical Society of the State of New York are cordially invited to visit the Squibb exhibit. Several new items will be shown. Among them is Intocostrin, the standardized purified curare extract now widely used to soften convulsion in shock therapy; a new, highly useful therapeutic multivitamin preparation; a sulfathiazole-ephedrine derivative combination for ophthalmic use. Information on new products use-ful in venereal disease therapy and control will also be available.

Frederick Stearns & Company, Detroit (Booths 99 and 100). Doctors are cordially invited to visit our attractive convention booth to view and discuss

outstanding contributions to medical science developed in the scientific laboratories of Frederick Stearns & Company. Our professional representa-tives will be pleased to supply all possible information on the use of such outstanding products as Neo-Synephrine Hydrochloride for intranasal and ophthalmologic use, Neo-Synephrine Sulfathiazolate, amino acids (Parenamine) for parenteral and protein feeding, Mucilose for bulk and lubrication, Fergon (ferrous gluconate), Gastric Mucin, Susto, Trimax, Appella Apple Powder, Nebulator with Nebulin A, and our complete line of vitamin prod-

R. J. Strasenburgh Co., Rochester, New York (Booth 110). The feature of this exhibit will be a demonstration of the safe nontoxic spasmolytic action obtained with Metropine (Methyl Atropine Nitrate, Strasenburgh). (A) Metropine has only one-tenth the mydriatic action and one-fiftieth the toxicity of atropine; (B) absence of the undesirable side reactions often observed with atropine is assured.

Tampax Incorporated, New York (Booth 22). Now. more than ever, you should not miss visiting Booth 22 and the opportunity to check the many advantages offered by this highly approved form of intravaginal catamenial protection—so widely preferred because of its many unique features. Special attendants will be glad to demonstrate to physicians and their wives full details as to its functional design, absorptive efficiency, comfort, and convenience.

Tarbonis Company, Cleveland, Ohio (Booth 83).
Besides samples of Tarbonis, a comprehensive, profusely illustrated brochure will be presented to visitors at the Tarbonis booth, describing the established therapeutic efficacy of this unique tar preparation in the management of cutaneous disorders, as well as its remarkable value in the cortain of the cortain o rection and prevention of industrial dermatoses.

Teca Corporation, New York (Booth 66), will show apparatus for an improved method of hydrogalvanic applications for hospital and office use. The equipment is used in conjunction with any bathtub or the Teca tank combination. This unit affords a new and highly efficient treatment, general as well as local, by means of two independently controllable circuits and the special Teca electrodes allowing circuits and the special Teca electrodes, allowing utter flexibility of application.

E. Trautman Associates, Inc., Columbus, Ohio (Booth 80). Vitalert (high potency multivitamin) and Vitallergy (high C with A and B.) feature the latest development in the vitamin field, by separating in one really the oil republic vitamins from the ing in one pellet the oil-soluble vitamins from the water-solubles. This special construction permits maximum absorption of each in its proper media and environment. The oil calubles held in an acidand environment. The oil-solubles, held in an acidproof inner coating, pass intact into the intestines, after the water-solubles have disintegrated in the acid medium of the stomach.

U. S. Vitamin Corp., New York (Booth 84). Exhibit depicts the various devitalizing factors which tend to destroy the vitamin-mineral content of foods before they reach the table. Displayed, too, is an enlarged Funk-Dubin Visual Vitamin Deficiency Chart show-

[Continued on page 812]

# Ninth Annual Postgraduate Institute

# THE PHILADELPHIA COUNTY MEDICAL SOCIETY

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Physicians in the Armed Forces Admitted Free

Program Furnished on Request

George P. Muller, M.D., Director 301 South 21st Street Philadelphia 3, Pa.

# UTIC TEAMWORK

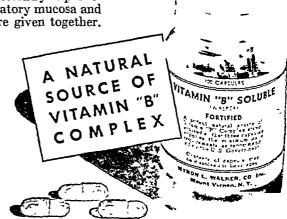
# Vitamin "B" Complex fortified with Vitamin "C"

Research has shown that vitamins B and C appear to work as a team in effecting beneficial changes in cellular physiology. This was clinically manifested by improvement in pathology of the upper respiratory mucosa and the retina when the two vitamins were given together. When only one was used, this favorable reaction did not occur.

Vitamin "B" Soluble (Walker) is derived from brewers yeast—its potency increased so that three capsules meet the minimum daily needs for vitamin B factors recommended by the U.S. Government.

Professional samples sent on request to Myron L. Walker Co. Inc., Mount Vernon, New York.

### VITAMIN "B" SOLUBLE (WALKER)



### [Continued from page 810]

ing the various organs of the body and depicting symptoms arising as a result of vitamin deficiency of each.

Walker Vitamin Products, Inc., Mount Vernon, New York (Booth 40), are exhibiting an extensive line of ethical vitamin products. Featured products are the Council-accepted A-D Drops and the various vitamin tablets. Also of special interest is the new super-potency B complex product, Neobevin, and the high-potency Mineralized Vitamin Tablets. This new multivitamin-mineral product is fat-free and without any fishy after-taste. Samples will be available.

Wallace & Tiernan Products, Belleville, New Jersey (Booth 69), cordially invites you to visit our exhibit and register for literature and samples. Azochloramid, the modern chlorine antiseptic, and Monomestrol, a new synthetic estrogen, will be displayed. Motion pictures of several interesting surgical procedures (general, plastic, and orthopaedic) will be shown. Our representatives will welcome your questions and comments.

William R. Warner & Company, Inc., New York and St. Louis (Booths 76 and 77) will exhibit its extensive line of specialty pharmaceuticals, including several new preparations of interest to physicians engaged in general and specialized practice.

Westwood Pharmacal Corp., Buffalo, New York (Booth 35), will exhibit new sulfathiazole solutions

in water-soluble, nonirritant, extremely benign bases; Westhiazole 20-20 per cent sulfathiazole, of ointment-like consistency, suggested in surgery, gynecology, and dermatology, pH 7.2; Westhiazole ENT-5 per cent solution in liquid form, suggested for nasopharyngeal infections, pH 6.2; Lowila—soapless skin cleansers for the treatment and prevention of industrial dermatoses, pH approximating that of normal skin.

White Laboratories, Inc., Newark, New Jersey (Booth 67). You will find interesting copies of a series of publications under the general title Diagnostic Aids to Vitamin Deficiency Conditions. Medical service representatives in attendance will be very glad to discuss these with you. The latest clinical reports on results of the use of White's Vitamin A and D Ointment in the treatment of burns and various types of ulcers will also be available. This is a product which you will undoubtedly find of great interest.

Winthrop Chemical Company, Inc., New York (Booths 102 and 103), has available a number of interesting and highly informative booklets. Ask particularly for your copy of Penicillin, Annolated Bibliography, and Demerol, about the new analgesic, spasmolytic, and sedative.

Wyeth Incorporated, Philadelphia (Booths 70, 71, 72, 73, and 74), invite you cordially to visit their booths, which will feature the medical specialties of their nutritional, biologic, and pharmaceutic division.



# MALPRACTICE INSURANCE PROTECTION\*

for

INFORMATION, ADVICE OR ASSISTANCE

refer to

HARRY F. WANVIG

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NEW YORK CITY 5

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\* For Members of the State Society only.

IN DISORDERS OF GASTRIC FUNCTION



GASTRON is an original extract of the organic and inorganic constituents of the entire mucosa of the hog-stomach including the pylorus. The acidified and aromatized extract is incorporated in an aqueous-glycerin-propylene glycol menstruum which preserves the enzymatic activity. The preparation contains no alcohol. It is accurately standardized by assay.

GASTRON is indicated as replacement therapy in atrophic gastritis, and as an aid in the treatment of chronic gastritis. It is of value as adjunctive treatment in the anemias, and in certain gastric deficiencies associated with convalescence and old age. It is worthy of trial in the nausea and vomiting of pregnancy.

GASTRON WITH IRON also is available for prescription use

Originated and Made by

FAIRCHILD BROS. & FOSTER
The Fairchild Buildings
NEW YORK 13, N. Y.

# Woman's Auxiliary

### To the Medical Society of the State of New York

### Annual Convention

### Hotel Pennsylvania, New York—May 7-10

THE ANNUAL CONVENTION of the Woman's Auxiliary to the Medical Society of the State of New York will be held May 8, 9, 10, 1944, at the Hotel Pennsylvania, New York. Headquarters will be in the Roof Garden.

All doctors' wives, whether members of a Woman's Auxiliary to a county medical society or not, are urged to register at the Registration Desk in the Corridor, Eighteenth Floor, Roof Garden, and are cordially invited to participate in all parts of the program.

### Program

Sunday, May 7	7:00 P.M. Annual banquet (Auxiliary)—Roof Garden—Roof Garden
2:00 P.M 4:00 P.M. Registration—Corridor, Eighteenth Floor, Roof Garden	Tuesday, May 9
Monday, May 8	9:00 A.M.— 5:00 P.M. General registration—Corridor 9:00 A.M.— Designation for Luncheon (1:00
9:00 A.M 12 Noon Registration of Delegates—Corridor 9:00 A.M 5:00 r.M. General registration for all doctors' wives daily throughout the Convention—Corridor	9:00 A.M.  11:00 A.M. Registration for Luncheon (1:00 P.M.)—Corridor  9:30 A.M.— 12 Noon Second half of House of Delegates— Roof Garden .  1:00 P.M. Luncheon—Roof Garden
9:00 a.m 4:00 p.m. Registration for Auxiliary Dinner (Monday, 7:00 p.m.) and Luncheon (Tuesday, 1:00 p.m.)—Corridor  10:00 a.m 12 Noon 1:00 p.m 4:00 p.m. First half of House of Delegates meeting—Roof Garden	Wednesday, May 10  9:00 A.M. General registration continued—Corridor  9:30 A.M. Postconvention meeting of Executive Board

### Officers

President, Mrs. F. Leslie Sullivan, Scotia
 President-Elect, Mrs. Carlton E. Wertz, Buffalo
 First Vice-President, Mrs. E. A. Griffin, Brooklyn
 Second Vice-President, Mrs. C. A. Seymour, Binghamton

Treasurer, Mrs. Louis A. Van Kleeck, Manhasset Recording Secretary, Mrs. H. F. Pohlmann, Middletown

Corresponding Secretary, Mrs. E. MacD. Stanton, Duanesburg

# How irritation varies\_from different cigarettes

Tests made on rabbits' eyes reveal the influence of hygroscopic agents

Edema 0.8	Cigarettes made by the PHILIP MORRIS method
2 Edema 2.1	Cigarettes made with no hygroscopic agent
3 Edema 2.7	Popular cigarette #1 made by the ordinary method
4 Edema 2.6	Popular cigarette #2  -made by the ordinary method
5 Edema 2.7	Popular cigarette #3  -made by the ordinary method
6 Edema 2.7	Popular cigarette #4made by the ordinary method

CONCLUSION:\* Results show that regardless of blend of tobacco, flavoring materials, or method of manufacture, the irritation produced by all ordinary cigarettes is substantially the same, and measurably greater than that caused by PHILIP MORRIS.

CLINICAL CONFIRMATION:\*\* When smokers changed to PHILIP MORRIS, every case of irritation of the nose and throat due to smoking cleared completely or definitely improved.

# New York State Association of School Physicians

# Annual Meeting Hotel Pennsylvania, New York—Monday, May 8

#### 2:00 P.M.\*

Presidential Address

John E. Burke, M.D., Schenectady

"A New Program for Health Teaching"
Lillian De Armit, M.D., Albany
Acting Chief, Bureau of Health Service, State
Education Department

Discussion: O. W. H. Mitchell, M.D., Syrncuse Professor of Public Health, Syracuse University; Chairman, Council Committee on Public Health and Education, Medical Society of the State of New York

"School Nurse at War"
Mildred H. Meek, R.N., Ningara Falls
President, New York State School Nurse-Teachers' Association

### 6:30 P.M.

Dinner for School Physicians, School Nurses, and Physicians' Wives Election of Officers (Dr. John E. Burke presiding)

### 8:00 P.M.\*

"Some Phases of School Health Service"

Leona Baumgartner, M.D., New York
Director, Bureau of Child Hygiene, Department
of Health, New York City; also in charge of
School Health Services

"Classification, Treatment, and Guidance of Children with Heart Disease"

J. G. Fred Hiss, M.D., Syracuse Cardiologist, Syracuse Public Schools Discussion: William E. Ayling, M.D., Syracuse Director of School Health

<sup>\*</sup>Open Meeting.

# IN B-COMPLEX DEFICIENCY

Increasing evidence indicates the importance of providing all the factors of the B-complex in the treatment of vitamin deficiencies, though the symptom complex may be dominated by a single factor.

Plexamin, biologically standardized, presents the entire B-complex, as derived from a natural base, plus the known essential factors added in synthetic form, in proportions recommended for optimal nutrition.

Not only because of its rational formula, but also because of its notably reasonable price, Plexamin is being given preference by a constantly growing number of physicians.

THE PAUL PLESSNER COMPANY

35 YEARS OF ETHICAL SERVICE

DETROIT 2 • MICHIGAN

Each capsule of Plexamin contains not less than:

> Plus all the other factors supplied by the yeast and liver concentrate base.





### Women's Medical Society of New York State

### Annual Meeting

Hotel Pennsylvania, New York-May 7-8, 1944

THE thirty-eighth Annual Meeting of the Women's Medical Society of New York State will be held in New York, May 7-8.

The President's Tea will be held on Sunday, May 7, from 4:00 P.M. to 6:00 P.M.

The regular annual meeting will be held on Monday morning, May 8.

The program for Monday is as follows: 9:00 A.M.-9:30 A.M.—Councilors' Meeting; Registration:

10:00 A.M. to 12 Noon-Business Session; 1:00 P.M.—Luncheon; 2:00 P.M. to 5:00 P.M.—Scientific

The following scientific session has been planned: "Symposium on the Work of Medical Women in the Armed Forces."

THERESA SCANLAN, M.D., President MARY A. JENNINGS, M.D., Secretary

### Officers of the Women's Medical Society

### Honorary Presidents

Mary T. Greene, M.D. Helene J. C. Kuhlmann, M.D. Rosalie Slaughter Morton, M.D.

#### President

Theresa Scanlan, M.D. 133 E. 58th St., New York City

### Vice-Presidents

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305 Washington Ave., Brooklyn
Helen Walker, M.D.
2020 Main St., Buffalo
Sophy Page Carlucci, M.D.
61 Washington Ave., Endicott

### Treasurer

Isabel Scharnagel, M.D. 155 E. 73rd St., New York City

Mary A. Jennings, M.D. 901 Lexington Ave., New York City

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### 3rd District Branch

Elizabeth Vuornos, M.D. 12 Chestnut St., Liberty

### 4th District Branch

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Florence Warner, M.D. 78 Front St., Binghamton

### 7th District Branch

Kathleen L. Buck, M.D. 331 Monroe Ave., Rochester

### 8th District Branch

Alta Sager Green, M.D. 30 Cayuga Road, Williamsville

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Ethel Doty Brown, M.D.
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Louise Beamis-Hood, M.D.
Marion S. Morse, M.D.
Mary J. Kazmierczak, M.D.
Clara H. Pierce, M.D.
Elies S. L'Esperance, M.D.
Madge C. L. McGuinness, M.D.
Alice Stone Woolley, M.D.

### Honorary Member

Catherine Macfarlane, M.D., Philadelphia, Pa.

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### Scientific Program

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Sonya A. Monen, M.D. 404 55th St., Brooklyn

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Florie D. Frothingham, M.D. 58 E. 58th St., New York City



Dependability in Digitalis Administration

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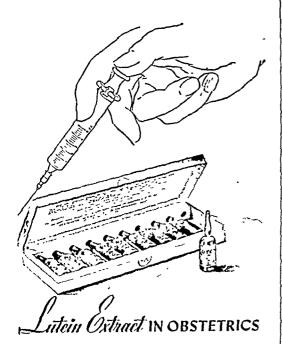
Being the powdered leaves made into physiologically tested pills, all that Digitalis can do, these pills will do.

Trial package and literature sent to physicians on request.

DAVIES, ROSE & COMPANY, Limited

Manufacturing Chemists,

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Lutein Extract is indicated in obstetrical complications, especially threatened and habitual abortion.\* Injections of Lutein Extract in adequate dosage inhibit uterine contractions.

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\*Drs. Frederick H. Falls, George H. Rezek and S. T. Benensohn, Surgery, Gynecology and Obstetrics, September, 1942, Vol. 75, pp. 289-299.

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#### POST-WAR POPULATIONS

Of interest to future physicians as well as those now practicing, should be the probable change in population changes following the war. The future is still as unpredictable as it has ever been, but according to a theory based on the survey made by Dr. Philip M. Hauser, assistant director of the Census Bureau, the West and the South are favored for a steady growth in population.

Of all sections of the country, the East has the least chance of a post-war growth.

In addition to accelerating population trends, which were observed in peacetime, Dr. Hauser points out that for the first time the United States has a surplus of women caused by the war. Gaps, also, have been created in the age structure which will last for generations. The gradual decline in national population growth which set in about fifty years ago will be accentuated by the war.

Areas most likely to retain war growth are those which showed the most rapid growth in years just prior to the war and during the war years. Such places include cities in Georgia, South Carolina, Texas, Florida, Alabama, Arizona and California—plus Washington, D.C.

Cities second likeliest to succeed in retaining their growth numbered many in the same States, plus New Orleans, Norfolk, Portsmouth, Newport News, and Richmond. Portland in Maine and Wilmington, Del., appear to be the only eastern cities mentioned.

Places which grew rapidly in wartime, but at a lower rate from 1920 to 1940, will need special programs in converting from war to peace activity in order to continue their growth. Some cities which grew beyond average in 1920-40 but which lost population or grew smaller during war have, nevertheless, an excellent prospect of coming back.

Metropolitan areas have a gloomier outlook for the future. These, Dr. Hauser predicts, have only a fair chance of post-war growth. Among those so fated are—our own New York City, northeastern New Jersey, Atlantic City, Chicago, Decatur, Cleveland, Toledo, Youngstown, Flint, Grand Rapids, Fort Wayne, South Bend, Huntington (W. Va.), Ashland (Ky.), Milwaukee, Roanoke (Va.) and Topeka (Kan.).

Areas destined neither to grow rapidly nor recoup losses after the war cover those which have decreased in population or grown little during the war and had in population or grown little during the war and had the same trend in the two previous decades. In the war trend in the two previous decades. In New York State such locations included Albany, Schenectady, Troy, Buffalo, Niagara, Rochester, Syracuse, Utica and Rome. Among larger cities in other States, Boston, Providence and Pittsburgh

were mentioned.

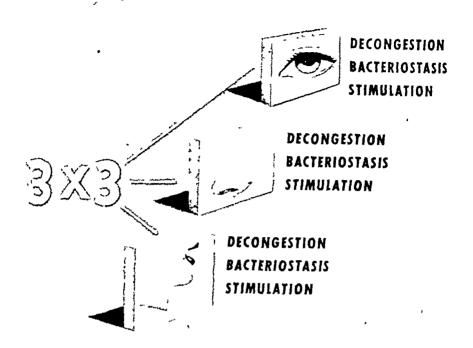
Population growth has been more rapid in the South and West since Pearl Harbor than it has in the North. The North has the largest percentage of metropolitan areas in the class with the least possible chance of growth after the war. The West had the highest percentage of areas in the class most highest percentage of areas in the class most likely to retain wartime population growth, with the South having the next highest percentage in this class.

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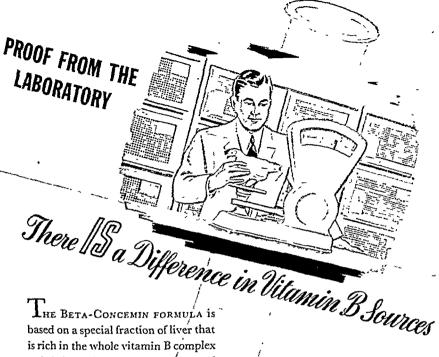
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- 1. No advertisement shall contain any matter which in any way, directly or by implication, departs from truth as to character of the product or suitability for the purposes for which it is recommended in any firm's advertisement.
- 2. No advertisement shall contain any matter which can be regarded as holding out for the prevention, cure, or relief of serious diseases which should be rightly under the care of a registered medical practitioner.
- 3. No proprietary medicine shall be advertised in terms which guarantee to cure a specific ailment or which imply such a guarantee when offering to return money paid by a purchaser.
- 4. No advertising shall contain any matter, which, in its reasonable construction, can be calculated to create fear or apprehension on the part of the reader that he or she is suffering or may without treatment, suffer from serious ailment.
- 5. If any testimony is used, it must have been honestly obtained and must be limited to the actual views of the user.
- 6. No advertisement shall contain any reference to doctors or hospitals, whether British or foreign, unless such references are substantiated by independent evidence lodged with the secretary of the association.
- 7. No proprietary medicine advertisement shall offer prize competitions or schemes calculated to lower the tone of the industry.
- 8. Illustrations and printed matter shall be in good taste.
- 9. No member of the association shall make use of any imitation of the trade marks or names of competitors or imitate packages.
- 10. No association member shall, without authority, use titles or descriptions which may lead persons to believe that the product recommended emanates from any hospital or official source.
- 11. Every member of the association must provide his advertising agent with copies of the code and every member will be held responsible for the form of any advertisements appearing over his name.
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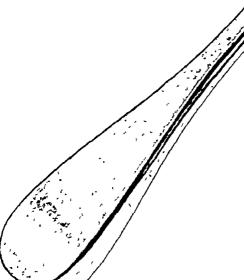
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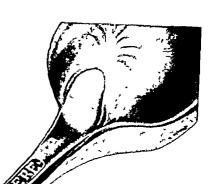
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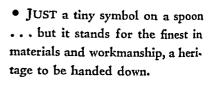
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**VOLUME 44** 

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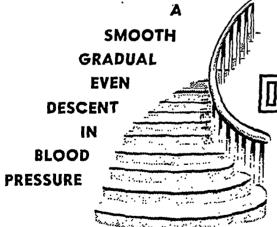
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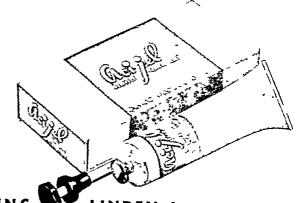
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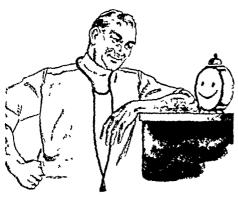
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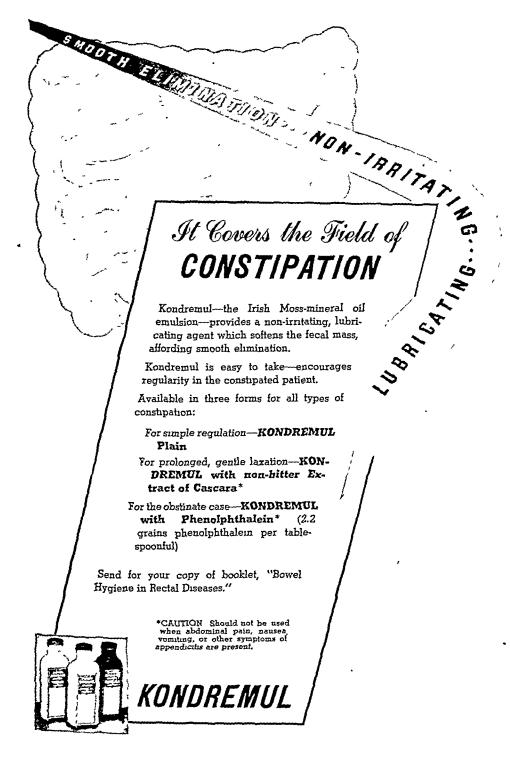
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Literature will be sent upon request

#### REFERENCES

<sup>1</sup>Kuhns D M., Nelson, C T Feldman, H A and Kuhn, L R JAMA 123.335 (Oct 9) 1943 <sup>2</sup>Von Orden, T D and Americant C H H S New M Put

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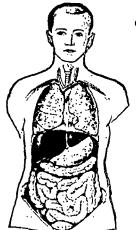
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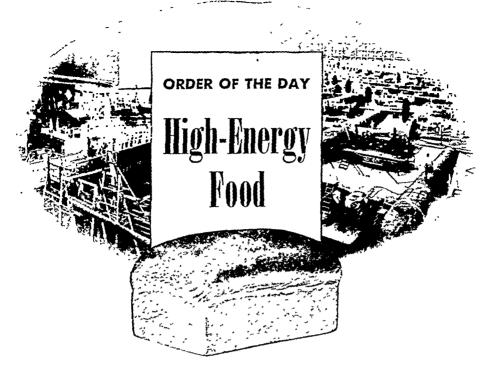
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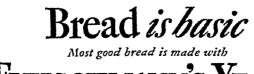
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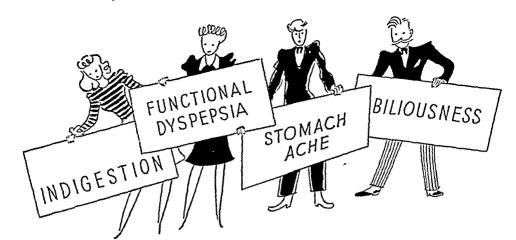


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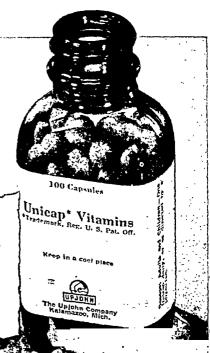


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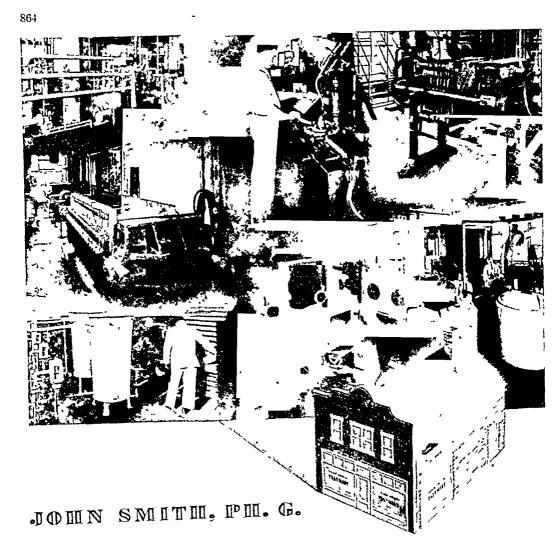
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# NEW YORK STATE JOURNAL OF MEDICINE

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**VOLUME 44** 

APRIL 15, 1944

NUMBER 8

## Editorial

#### What Others Think, II

You ask, why waste a doctor in Congress, and the question is valid. My answer is taken from a wiser physician than we, who once said, "They that are well need not a physician, but they that are sich." And I believe that our greatest need today for a physician is in Congress.... Congress needs our help as physicians.

So says Dr. Walter H. Judd, Congressman from Minnesota, who should know from his experience on the spot what he is talking about. He continues,

We cannot ignore the fact that the quality and distribution of medical care in America today is madequate and imperfect. This does not affect a large proportion, perhaps less than 10 per cent. At least 80 to 90 per cent of our population has the best medical care in the world.

There are groups, however, who focus their attention only on the 10 per cent, and then plan to scrap the 90 per cent good to salvage the minority. Moreover, these groups have access to machinery that is influential and they mean to carry their program.

When you look at medical care as a purchasable commodity and compare it with food, for instance, you can see why their plans gain an audience. Whenever a shortage exists in any necessary commodity this must either be rationed or it will be acce-ible only to the highest bidder. One or the other of these results will grow out of our present shortage of physicians. It now rests with us to choose. "If we don't lead, I promise we will have imposed on us the solution."

Of course our hope is to salvage what is good in our present system and ultimately to perfect the part that is lacking today. But we will not do that if we permit politicians to work out their own plan. In this, the relationship between the doctor and his patient is destroyed. In this plan inefficiency is uplicle.

We must have better representation in Washington We need a har-on between government and

our profession. "Those who sell what's bad are getting away with it. Why cannot we, who merely want to hold to what's good and add that which is better, do the same?"

And why not? We ask with him. Is there any valid reason?

The seven doctors in the House cannot represent medicine. It would be most harmful if we tried to. We represent the people who send us to Washington. But, and I speak from experience, we need to know what you want and you need to know our problems.

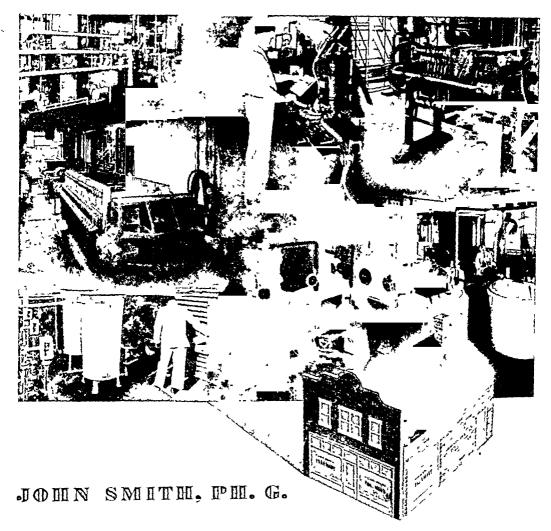
That the medical profession is weak on this point can be shown in two illustrations. First, you recall the amendment on standards that passed with the Soldiers' Wives Bill. We had no previous knowledge that this amendment was coming up. We were not warned beforehand. Not one single doctor wrote us, presumably because they didn't know about it either. But the chiropractors and the osteopaths knew about it. They went to their friends and urged the passage of this amendment. They had organized their forces and the amendment passed.

The second illustration is on the same subject. A congressman friend of mine told me this story. He voted against the amendment. Then later when he visited in his state, fifty-three quacks of all descriptions called him to complain about his action, but not one doctor remembered to thank him.

Please help us. Show us what you want us to do. I plead for unity, but not blind unity You must have a good program first.

It seems to us that Dr. Judd has said a great deal in a few words when he remarks, "If you can't change your Senator's mind, change your Senator!"

We have a great nation. We have come a long way but we cannot stop now to coast on yester-day's victories. We must go ahead, and the only way to reach a better harbor is to leave the harbor we are in now.



JOHN SMITH is one of the many highly-respected pharmacists of the Central West. His professional service, not only to physicians but to their patients as well, is unexcelled. His stocks are complete in every detail and, whether he makes it in his own laboratory or buys it from an outside source, the medicament prescribed is always promptly available.

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control over their lives that government, by imposing a constant fear upon them of having those benefits

<sup>1</sup> Med. Bull. Sedgwick Co. Med. Soc. (Kansas) 13: 5 (March) 1944. Summarized address of Dr. Judd at National Conference on Medical Service Chicago February 13, 1944. withheld or withdrawn, can compel from them obedience and subservience to its dictates."2

<sup>2</sup> The American People, National Physicians' Committee 1944, based on data compiled by Opinion Research Corporation, Princeton, New Jersey.

J.A.M.A. 124: No. 11: 708 (March 11) 1944.

#### Primary Atypical Pneumonia

On page 869 of this issue Drs. Norman S. Moore, Henry B. Wightman, and Edward D. Showacre of Cornell University, Ithaca, New York, report a statistical study of 196 cases of this disease variously known as primary atypical pneumonia, acute interstitial pneumonitis, virus pneumonia, acute influenzal pneumonia, or pneumonitis. Eighty-six cases of this disease had been previously reported in 1939 as acute interstitial pneumonia, from Cornell University by Smiley, Showacre, Lee, and Ferris.

The present cases represent those occurring in a population of 7,000 men and women, of whom 6,000 were students and 1,000 officers at the Naval Training Station at Cornell. Of their cases, the authors say:

During the six-year period since 1937, when the existence of the disease was first accepted at Cornell, we have seen a total of 354 cases of primary atypical pneumonia. The yearly incidence has varied from a low of 20 in 1940–1941 to 196 in 1942–1943. Until more is known about the cause and the means of spread we cannot account for this seasonal variation. Our experience in late 1943 would indicate a falling off in the number of cases for this year.

We realize that in reporting this series we are dealing with only the young adult group. In a university community this would, of necessity, be true. Dingle and Finland write: "The vast majority of the reported cases have occurred in adolescents and young adults."

The patient experienced a degree of disability in proportion to the severity of his illness. The patients with severe cases had a long hospital stay, had persistent rales in the chest after the x-ray showed that the lungs had cleared, and suffered considerable weight loss. It took at least two weeks for the weight to be regained....

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The question of sulfonamide therapy is raised with each series of cases reported. It is now defi-

nitely established that sulfonamides have no influence on the disease itself, and in this we readily concur. In fact, the failure to react to sulfonamides should guide one in part in arriving at the diagnosis of atypical pneumonia....

We believe that there is an indication for sulfonamide therapy during the initial phase, before definite diagnosis of primary atypical pneumonia is established, and during the course of the disease if involvement from secondary organisms occur.....

The considerable temporary disability occurring among those afflicted has caused the Surgeon General to assign a special commission to study the disease, as to its cause and the clinical problem presented.

The cause has been suspected but not universally accepted; the clinical course has been repeatedly described, prognosis has been reported generally good, the treatment advocated has been largely symptomatic, and the complications encountered have been few....

The prolonged temporary disability involved would seem to be a matter of concern to industry also as considerable periods of hospitalization and loss of time are involved at a moment when manpower shortage is becoming increasingly acute.

In their second article in this issue the authors say: .

Radiographic studies, so far in the literature, have been confined to the description of a series of cases in a single epidemic and have differed considerably as to appearance, course, and complications. This may be explained by our observations of variation in x-ray pattern from one season to another and, at times, during the same season. This change in pattern may be due to a variation in virulence or in the type of virus, assuming that a virus is the causative agent.....

They then describe five types of x-ray patterns, and conclude that:

The radiographic appearance is characteristic but not diagnostic in the majority of cases. Similar patterns may arise from the inflammatory reaction to many irritants—virus, rickettsia, protozoa,

From the A.M.A. News of March 9, 1944. we learn:

In July, 1943, the National Physicians' Committee employed the largest opinion research group in this country to make a comprehensive study of the people's opinion about medical care. The results of that study have just been made available. . . . .

This is excellently summarized in the A.M.A. News:

The report should be of great help to medical leaders by pointing the way in planning for the extension of medical service. The report indicates the necessity for more education of the public regarding the issues involved in proposals for changing the nature of medical service. When people understand the issues, an overwhelming majority are unqualifiedly opposed to any such proposals as the Wagner-Murray-Dingell bill, which would establish federal control of medical practice. Even though the people sense the need for the extension of facilities designed to meet the costs of unusual or prolonged illness, only a small minority, as shown by this report, believe that compulsory sickness insurance would provide a satisfactory solution to the problem.

Many of the questions in this research concerned the personal experiences of the people with medical care as now provided in the United States. The replies, in great majority, indicated that the people are deeply conscious of the value of individualized service in the effectiveness of medical care, that they want complete freedom of choice in time of illness, and that they believe choice would be limited and restricted by administration of medical care under the auspices of the federal government.

Out of this report came the conviction that many persons find difficulty in meeting bills for unusual or prolonged illness and desire to participate in plans or methods for insurance against the hazards of emergency illness. Already great numbers of people are familiar with the various prepayment plans for medical service available throughout the country. The investigat ons extended into many communities in which such plans are operating and covered the experiences of the participants. To summarize the many questions asked on this phase of the report: Persons who participate in prepayment plans approve them; in every instance such persons believe they are better off than their neighbors who have no such opportunity; the doctors in areas where such plans are in operation believe that the people are better off because of the operation of the plan. More than 50 per cent of the doctors in such areas stated that it would be a good thing if all industries would operate prepayment medical and hospital service plans for their employees. . . . .

The information elicited by this survey. if intelligently used, should furnish material for calm and reasonable argument, and should surely stimulate efforts to provide

prepaid medical care. Apparently the American people do not favor a 6 per cent pay-roll deduction from wages for the federal government to provide medical care and hospitalization. "Only 8 per cent," says the report, "expressed the opinion that compulsory insurance would provide a satisfactory solution to the problem of payment for medical care costs; only 24 per cent thought it would be a good thing for the medical profession to be controlled by the national government."2

A majority of the people who participate in prepayment plans approve them, according to the report; in every instance such people believe they are better off than their neighbors who have no such opportunities. Where plans are in operation, over 50 per cent of the doctors approve them and over 50 per cent of the doctors believe "it would be a good thing if all industries in the nation would operate prepayment medical and hospital service plans for their employees."

Not only are the doctors opposed to the proposals for medical care and hospitalization of the Wagner-Murray-Dingell bill, but also the House of Delegates of the American Bar Association. The Association's report, in part:

Criticizes the proposed legislation because it is "prepared in a form which has become popular in the past ten years, being replete with involvement, cross references, new terminology, percentages, and other confusing matter," so that the chapter on socialized medicine leaves the reader in utter confusion as to its meaning. The distinguished lawyers who prepared this statement point out that "no one can estimate how much tax money is involved or how many people are covered" from the face of the

Since, however, the bill would propose to include every individual worker and since every family in the United States has at least one and one-half employed working members, the coverage would include practically every family in the United

The final paragraph of this report of the American Bar Association merits quotation and requotation as a fundamental appeal to the citizens of the United States to protect the Constitution. This statement

says: "The Constitution of the United States is designed to protect the citizens of this republic in the exercise of the rights of free men. The provisions of that instrument can be rendered impotent when our citizens, for the sake of an apparent immediate benefit, surrender to their government such direct

#### PRIMARY ATYPICAL PNEUMONIA, I\*

A Statistical Report of 196 Cases

NORMAN S. MOORE, M.D., HENRY B. WIGHTMAN, M.D., and EDWARD C. SHOWACRE, M.D., Ithaca, New York

IN 1939, under the title of "Acute Interstitial Pneumonitis," 86 cases of this "new disease entity" were reported from Cornell University. This condition was thought to be similar to that reported by Bowen from Hawaii in 1935, by Allen from Texas in 1936, and by Reimann from Philadelphia in 1938. All of these reports described a similar disease entity and emphasized the importance of the roentgenogram.

During the following years this disease received much attention. Its importance increased when many millions of young men were assembled in military camps, for it attacks young adults more frequently than other age groups. Because of the considerable temporary disability occurring among those afflicted, the disease has created much interest among the medical officers of the armed forces.5,6 The Surgeon General has assigned a special commission to study the cause as well as the clinical problem. Through the many reports on the subject a clinical picture of the disease is now well established. The cause has been suspected but not universally accepted;7 the clinical course has been repeatedly described, prognosis has been reported generally good, the treatment advocated has been largely symptomatic, and the complications encountered have been few 8

No one name for the disease syndrome has been accepted. Primary atypical pneumonia, acute interstitial pneumonitis, virus pneumonia, acute influenzal pneumonia, and pneumonitis are some of the names that have been used.

During the years 1935 and 1936 the possibility of a separate disease entity, apart from bronchopneumonia, was not entirely accepted by the attending staff at Cornell even though considerable x-ray evidence had accumulated during those years. By 1937, however, the term "pneumonitis" was employed for diagnostic record purposes at the Cornell Infirmary, and since that date the medical staff has been much interested in this new disease entity. The apparent prevalence of the disease in this locality contributed to the special interest. Our experience from 1937 to 1941, source volume being constant, may be summarized as follows: 1937-1938, 55

cases; 1938-1939, 39 cases; 1939-1940, 20 cases; 1940-1941, 21 cases; 1941-1942, 21 cases. During the twelve-month period between July 1, 1942, and July 1, 1943, a sharp rise in the incidence of the disease was noted. One hundred and ninety-six cases of primary atypical pneumonia occurring during that period were studied and provide the statistical data for this paper.

The cases represent those occurring in a population of 7,000 men and women comprised of 6,000 students and 1,000 officers at the Naval Training Station at Cornell. The statistical data of 196 cases are presented as follows:

Age.—The age is fairly uniform. The youngest patient was 16 and the oldest was 42 years. Only 12 per cent of the group was over 22 years, and this older group was made up essentially of older naval officers. The average age was 20.4 years.

Sex.—One hundred and sixty-three, or 84 per cent, were males, and 33, or 16 per cent, were females. The higher proportion of males is more significant than the figures show, for during the year the campus

population was 23 per cent female.

Months of Admission.—The series was started on July 1. During the course of the study a rapid rise in the incidence of cases was noted, which reached a peak in November and fell off in midwinter and spring. This may have been influenced in part by two weeks' University vacation in December, one week in May, and all of June. In July, 5 cases were admitted; in August, 15; in September, 13; in October, 38; in November, 53; in December, 22; in January, 19; in February, 14; in March, 7; in April, 5; in May, none; and in June, 5 (Fig. 1). During the first six months of the series (July to January) 146 cases, or 73 per cent of the series, occurred. This seasonal incidence conforms with the report from Camp Eustis. 5

Degree of Illness.—One must be guided in appraising the degree of illness by observations of the patient's temperature and the extent of lung involvement, together with toxic manifestations. Using these criteria, 115 patients, or 58 per cent, were classified as mild; 59, or 30 per cent, as moderate; and 22, or 11 per cent, as severe. There were no deaths.

Onset.—In 20 patients, or 10.2 per cent, the onset was sudden; that is, a matter of a few hours. In the majority of cases it was gradual. Fifty-eight patients said they had been ill for one day, 42 for two days, 34 for three days, 12 for four days, 11 for five days, etc.; 134, or 67 per cent, had been ill for three days or less. Cough with fever and malaise was frequent, both being present in 152, or 75 per cent, of the cases. Headache was the next most

From the Department of Clinical and Preventive Medicine, Cornell University, Ithaca, New York.

A second paper on "Primary Atypical Pneumonia" by Drs. Moore, Wightman, and Showaere, subtitled "Observations of Radiographic Patterns," appears on page 672 of this issue.—Editor

fungi, bacteria, chemical fumes, or mechanical

Diagnosis is dependent upon correlation of history, clinical findings, radiographic evidence, and bacteriologic study.

The onset, development, and recession of the disease as revealed by serial films are its most distinctive roentgenographic features when differentiating primary atypical pneumonia from other pulmonary pathology.

We hope that this timely contribution to the scientific study of primary atypical pneumonia will receive the careful reading and attention it merits.

#### The Annual Meeting

On May 8-11, 1944, the Annual Meeting of the Medical Society of the State of New York will be held for the first time at the Hotel Pennsylvania, New York City. This is a last reminder for those who have so far neglected to make reservations, and a hope that the meeting will be attended by more people than ever before

The scientific program has been given much thoughtful attention by the section chairmen, with the result that section meetings this year will provide a wide variety of stimulating papers and discussions. Much attention is being paid to penicillin and its uses. Recent advances in the study of problems of infected wounds and the effect of treatment will be discussed at the general sessions, with Dr. D. Dexter Davis presiding, and the practical management of certain endocrine disorders will be presented by Dr. Lewis Hurxthal of the Department of Internal Medicine, The Lahey Clinic, Boston, Massachusetts, at the session on Thursday, May 11. .

Continuous caudal analgesia, the intensive treatment of syphilis, atypical pneumonias, problems of treatment of tropical diseases, penicillin treatment in sulfa-resistant cases of gonorrhea in the female, the interpretation of visual fields in the neurotic patient, anomalies of the speech mechanism, management of war amputations in a general hospital, and many other topics of current interest will be discussed in section meetings.

The session on the history of medicine will hear of the progress of medicine in New York City and the Negro physician; the history of public health in Cattaraugus, Chautauqua, and Allegany counties, and also a brief history of dermatology in New York City.

There will be no banquet this year, as last, nor, probably, for the duration, as a measure of cooperation by the Society with the government's program of conservation for war. But there will be an address by Vice-Admiral Ross T. McIntire, Surgeon General, U.S. N.

As we have said before, it is this year more than ever important for everyone to attend the Annual Meeting. The real hardships and shortages of this war are just now beginning to be felt. Responsibilities are being loaded upon the backs of those of us who serve at home as never before. They are being carried willingly; they must be carried efficiently, for to do more with fewer hands, better methods must be devised to conserve time and energy. Better methods of diagnosis and treatment are being constantly worked out, new modalities created. At the Annual Meeting all these things are brought to a focus for your convenience. No one in these days of crowded hours can hope to acquire this information by reading Nor can one obtain that impression of the trend of thought within the profession in the isolation of the office or even in the larger but yet insulated contacts in the hospital and the county society. Personal contact with one's friends and acquaintances in the profession is a good and necessary thing. To learn something is always good, but to cultivate a new friendship or to renew a neglected one is better.

Time marches on inexorably. Our young friends have departed somewhat from us, our older friends remain yet a while, mellowed by the years, strengthened by life itself, broadened by sorrow, needing your help to carry on yet another year. You will not fail them. You will not fail the You will brothers in the armed forces. come; you will learn much, laugh a little, help as you always have and always will to make the meeting a success and encourage others to carry on under increasing difficulties, with cheerfulness and renewed energy and courage.

TABLE 1

	Dingle et al. (Percentage)	Present Series (Percentage)
Onset		
Gradual Sudden	74 26	72 28
Symptoms on admission		
Fever Cough Headache	81 99 78	76 75 57
Symptoms while in the hospital		
Cough Cory za Sore throat Sweating	99 41 36	90 25 16 21

previously stated, there were no deaths However, two factors seem to be evident. First, the signs of moisture occasionally persisted for weeks, and the fact that they were present was not an indication to keep the patient in bed or in the hospital. The accompanying cough during convalescence usually disappeared before the signs of moisture cleared Second, there was a feeling of weakness and easy fatigability which lasted for one to two weeks. One must take this into account when considering the time at which these patients are able to assume physical evercise. Weight loss, while prominent early in convalescence, was usually regained within two weeks after the fever subsided.

Treatment.—In general, the treatment was symptomatic. Cough mixtures and analgesics were commonly used. Occasionally steam inhalations made the patients more comfortable. Rest in bed and forced fluids were employed during the febrile period. On discharge from the hospital, modified duty was prescribed for both the civilian and the naval officer groups. Follow-up observations in the Outpatient Department enabled each patient to receive instructions regarding the time of his return to full duty, according to indications. Modified activity ranged from five to twenty days. The average time from hospital discharge to full duty was ten days.

#### Discussion

During the six-year period since 1937, when the existence of the disease was first accepted at Cornell, we have seen a total of 354 cases of primary atypical pneumonia. The yearly incidence has varied from a low of 20 in 1940–1941 to 196 in 1942–1943. Until more is known about the cause and the means of spread we cannot account for this seasonal variation. Our experience in late 1943 would indicate a falling off in the number of cases for this year.

We realize that in reporting this series we are dealing with only the young adult group. In a university community this would, of necessity, be true. Dingle and Finland's write: "The vast majority of the reported cases have occurred in adolescents and young adults."

The patient experienced a degree of disability in proportion to the severity of his illness. The

TABLE 2—Location of Pulmonaty Lesions in Primary Attrical Preumonia, Cause Unknown, as Demonstrated by Rochygen Examination

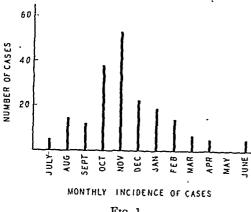
	Dingle et al	Present Series	
	(Percentage)	(Percentage)	
Right lung			
Upper lobe	6 7	6 0	
Viiddle lobe	2 5 29 8	1.0	
Lower lobe	29 8	33 0	
Hılus alone	9 1	••-	
Whole lung		10	
Left lung			
Upper lobe	56	2 5	
Lower lobe	33 7	43.0	
Hilus alone	3 5		
Whole lung	•	20	
Both lungs			
Lower lobes	60	6 5	
Other combinations	3 2	5 0	

patients with severe cases had a long hospital stay, had persistent rales in the chest after the x-ray showed that the lungs had cleared, and suffered considerable weight loss. It took at least two weeks for the weight to be regained. In a few cases the cough and coarse rales persisted for weeks after discharge from the hospital. There was no case, however, in which it was felt that the signs in the chest and the volume of sputum would warrant the diagnosis of bronchiectasis. This may take months to develop and is a question that can only be answered in the future. However, we did not see it in our Outpatient Clinic months after recovery from the disease.

When studying the report from Camp Claibourne by Dingle et al.<sup>9</sup> we were impressed by a similarity in onset, in symptoms on admission, and in symptoms while in the hospital. Table 1 shows this similarity. Likewise, Table 2 lists distribution of lung pathology as shown by roentgen examination. Similarity between the two groups of cases is apparent, particularly in the high incidence of lower lobe involvement.

Our experience differs from that of van Ravenswaay et al.<sup>6</sup> While in our series there were no deaths and few complications and short convalescences were the rule, the report from Station Hospital, Jefferson Barracks, Missouri, includes several deaths, serious complications, and long convalescences. The experiences of others<sup>5,5,9</sup> follow our own more closely.

The question of sulfonamide therapy is raised with each series of cases reported. It is now definitely established that sulfonamides have no influence on the disease itself, and in this we readily concur. In fact, the failure to react to sulfonamides should guide one in part in arriving at the diagnosis of atypical pneumonia. We do feel that secondary invaders play an important role in certain cases in which there is a secondary rise in temperature which cannot be justified by a spread of the pneumonia involve-



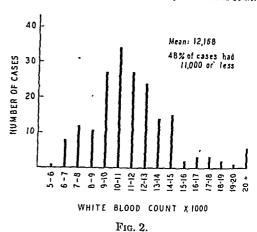
F1G. 1.

common symptom from the onset, being present in 57 per cent of the cases; 43 patients, or 22 per cent, had a sore throat; and 31, or 16 per cent, complained of a preceding cold. A few reported chills, but this was chilliness rather than shaking and rigor. A moderate grade of malaise was the rule.

Symptoms While in the Hospital.-Cough was the most consistent symptom, occurring in 179, or 90 per cent, of the cases. Headache occurred in 40 per cent, profuse sweating in 21 per cent, and sore throat in 16 per cent. Fifty cases, or 25 per cent, had some form of upper respiratory congestion; that is, a discharging or obstructed nose or a feeling of fullness in the head. The cough was of the dry, nonproductive type at the onset, gradually changing to the productive type as the disease progressed and the signs of moisture became evident in the chest. Appetite was poor during the fever phase. Weakness and lassitude were the rule, although the patients did not appear acutely ill. It was noteworthy that even when the patients were running a high temperature and had considerable lung involvement they were not toxic, were readily amused, and were interested in their surroundings and the activities of their ward mates.

Duration of Fever,-The hospital fever averaged 5.94 days, varying from no days to twenty. If the estimated prehospital fever is included, the average is nine days; 64 per cent had a fever for less than ten days.

Pleural Involvement and Other Complications.—As indicated by complaints of localized chest pain, or on the basis of x-ray evidence, pleurisy was present in 20 cases. In only one case was a pleural rub heard. Effusion in the mediastinal pleural space developed in one case. Drainage was not required and a residual adhesion from mediastinal pleura to diaphragm was present four weeks after all evidence of fluid had disappeared. A small effusion may have been present in 2 cases; both cleared without diagnostic or therapeutic drainage. One case of sinusitis developed. Two patients with an old history of asthma had a recurrence of asthma. There was one case of a severe, bilateral femoral thrombophlebitis. No otitis, tonsilitis, or empyema was noted.



Temperature Curves .- An irregular, peaked temperature curve was observed in all moderate and severe cases. In the mild ones the temperature dropped abruptly after one to two days and remained normal. Elevation of temperature in the early morning occurred in 38 cases. There were peaks, however, at various other times of the day in an equal number of individuals.

Blood Counts.-White blood counts were done on all but 6 patients. Only the highest count from each case was included. The counts varied from a low of 5,000 to a high of 25,000. There was one patient with a white blood count of 5,000-6,000; 8 with 6,000-7,000; 12 with 7,000-8,000; 27 with 9,000-10,000; 34 with 10,000-11,000 up to 20,000, the average being 12,168. Forty-eight per cent of the cases had a count of 11,000 or under (Fig. 2).

Total Days in Hospital.-Hospital days varied from three to twenty in the series. The average was twelve days.

Days on Which Signs Were First Heard .- In a selected group of 60 patients particular attention was given to the time of onset of lung signs. In 10 per cent of this group the signs were evident on the second day, in 15 per cent on the third day, in 15 per cent on the fourth day, in 17 per cent on the fifth day, in 7 per cent on the sixth. Sixty-six per cent of the patients had signs evident during the first week; the other 34 per cent took more than a week for the signs to develop.

X-Ray Evidence.—A chest radiograph was taken of all patients and no case is included which did not show specific x-ray evidence. The left lower lobe alone was involved in 82 cases, or 43 per cent. The right lower lobe alone was involved in 66 cases, or 34 per cent. Both lower lobes were involved singly or together in 84 per cent of the cases. The right upper lobe area was involved in 12 cases, the left upper in 5, the right middle lobe area in 2 cases, the whole right lung in 2, the whole left lung in 4; other combinations were present in 10 cases. The lower lobes were involved most frequently, the left more often than the right.

Prognosis.-Prognosis was found to be good, with complete clearing of the lung eventually. As

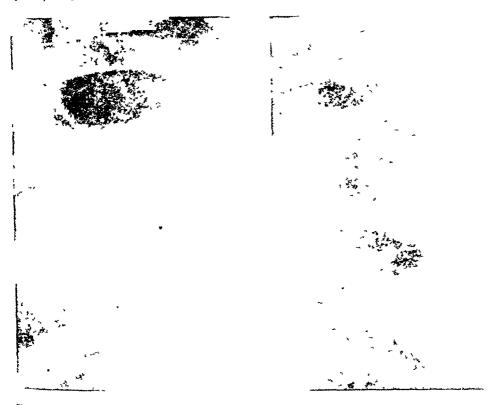


Fig. 1. Fan developing from hilum containing numerous soft nodules in hazy background

Fig 2. Portion of lung field showing scattered small, soft nodules and several larger patchy or soft nodular areas

thirty-six to seventy-two hours generally rerealed pathologic shadows. Seldom were these shadows maximum for the individual case, but, on the contrary, spread in area, became denser or became confluent. In rare instances, initial shadows were noted after seventy-two hours. One case in our series developed evidence of the disease on the seventh day. (3) The initial \ray taken after a neek or ten days of illness generally showed pathology to be at its maximum or receding. Exceptions were cases showing spreads when the maximum area involved was not reached for two or three weeks.

#### Variety of X-Ray Patterns

We have, so far, been able to distinguish a number of patterns when the primary film has been taken from twelve to seventy-two hours of ouset.

The Common Type.—This pattern occurs most frequently and, in our experience, was present in one-half the cases. It is characterized by increase in hilar density, swelling of the larger trunk branch shadows, and the presence of finer branch shadows which are normally not visible. These linear shadows are soon obscured but not obliterated by a veil of haze, the entire area forming a fan or band extending from the hilum into the adjacent lung irrespective of lobe margins. The fan is less dense toward its periphery and gradually merges into the normal lung pattern. An infrequent variation is the development of a homogeneous hazy fan with no definite change in the underlying linear markings.

The Nodular Type.—(1) The fine nodular type is essentially the preceding pattern plus scattered denser, soft nodular areas. It presents soft nodules (2 to 4 mm.) usually filling a section of lobe or lobes and associated with swelling of the trunk branch shadows, an increase in the finer pulmonic markings, general haziness of the entire involved area, and an appearance of tubercle formation. These minute spots may be so faintly outlined that a high speed exposure with later study of the film under a hand lens may be necessary to demonstrate them in their hazy background. They are best visualized in the margin of a fan since the denser central portion tends to obliterate them. Their occurrence in our series was quite variable, being uncommon

ment. We feel that the sulfonamides have an effect, even in low dosage, in controlling the pathogens of the respiratory tract. This is based on the work of Cecil, Plummer, and Smillie<sup>10</sup> and on our own experience. Throat and sputum cultures should be retaken if there is evidence of additional infection. Sulfonamides. in our opinion, are indicated at this time and seem to have a definite effect in reducing the subsequent complications of the disease. Also, we feel that their use is justified in a patient who appears acutely ill on admission, before the pneumonia has been classified. Not infrequently. in our experience, has the result of sulfonamide therapy contributed strong evidence in support of a pneumococcus pneumonia before the organism was obtained from sputum or blood. We are of the opinion that to do otherwise might deny a worthy patient the use of sulfonamide while one is waiting for cultural studies to determine the causative factor.

#### Summary

1. The yearly incidence of primary atypical pneumonia at Cornell University is reviewed from 1937 to 1943.

2. One hundred and ninety-six cases of primary atypical pneumonia occurring in the year 1942-1943 are studied statistically from the standpoint of age, sex, month of admission, degree of illness, symptoms at onset and while in the hospital, duration of fever, hospital days, blood counts, prognosis, and x-ray location.

3. We believe that there is an indication for sulfonamide therapy during the initial phase, before definite diagnosis of primary atypical pneumonia is established, and during the course of the disease if involvement from secondary

organisms occurs.

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#### PRIMARY ATYPICAL PNEUMONIA, II

Observations of Radiographic Patterns

EDWARD C. SHOWACRE, M.D., HENRY B. WIGHTMAN, M.D., and NORMAN S. MOORE, M.D., Ithaca, New York

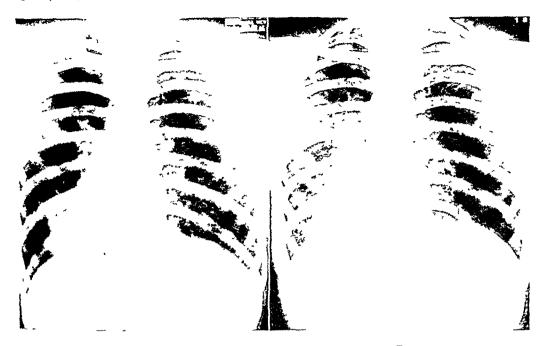
UR first experience with primary atypical pneumonia began in 1935 with one of us (E. C. S.), when several cases of mild and unusual lung infections were noted at the Cornell University Infirmary. These pneumonias did not fit any known classification in existence at that time and, after considerable staff discussion, the term "acute interstitial pneumonitis" was finally adopted in 1937 as the official hospital diagnosis. This name evolved from the previous use of "acute pneumonitis," a term used by Bowen1 in 1935 and by Allen<sup>2</sup> in 1936, together with our impression that the tissue reaction was in the interstitial structures of the lung along the bronchovascular trunk branches. This term was subsequently changed to "virus pneumonia" and more recently to "primary atypical pneumonia" in order to conform to common usage.

Radiographic studies, so far in the literature, have been confined to the description of a series of cases in a single epidemic and have differed

considerably as to appearance, course, and complications. This may be explained by our observations of variation in x-ray pattern from one season to another and, at times, during the same This change in pattern may be due to a season. variation in virulence or in the type of virus, assuming that a virus is the causative agent.

The appearance in the initial film will depend on the length of time elapsed since the onset of the disease. By onset we mean the date of the earliest symptoms as elicited by the history and not from the time of medical consultation or hospital admission. (1) Films taken within thirtysix hours of onset have usually shown no definite pathology. This has been particularly true of those patients whose illness had a gradual onset, the greater number of whom do not seek medical attention within twenty-four to thirty-six hours. Lung densities, when they appeared within this time, were more frequent among those with an abrupt influenzal type of onset. The practical importance of this observation is that an early film, read as a negative, does not rule out developing atypical pneumonia. (2) Films taken from

From the Department of Clinical and Preventive Medicine, Cornell University, Ithaca, New York.



A B
Fig. 5. A—Initial unit along left heart border. B—Seven days later: second fan extending from upper horn of hilum with beginning recession of original area: third unit developing in right upper lobe.



Fig. 6. A—Initial fan along left heart border. B—Five days later: explosive spread through lower two-thirds of same lung and all but the spex of the opposite lung. Early fan is clearing.

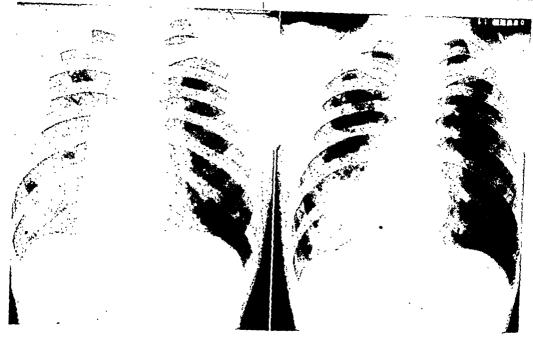


Fig. 3. A—Area of hazy infiltration developing in left base. B—After forty-eight hours: continuous increase or spread back to hilum and into cardiophrenic angle.

\*\*This also demonstrates the reverse fan formation.\*\*

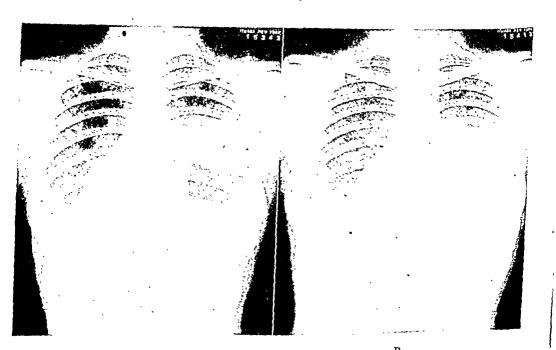


Fig. 4. A—Hazy, homogeneous fan extending laterally from right hilum. B—Extension downward through remainder of lower lobe resembling lobar pneumonia three days later.



Fig. 8. A—Illustrating an original soft area in upper lobe resembling acute tuberculosis. B—After seven days: slowly fading pseudo-fibrotic infiltration resembling a more chronic form of tuberculosis.

soft-edged appearance of an acute infection but appeared subacute in a few instances, or even resembled the residual fibrosis of an old, burned-out infection in others. Rapid change within a few days quickly established the true status of this infiltration (Fig. 7).

## Spread or Development to Maximum Extent

We have observed three varieties of spread: the continuous, the unit, and the explosive types.

The continuous type of spread is characterized by marginal enlargement of the original area of infiltration during the first few days after onset. It is comparable to an inflammatory process gradually reaching maximum proportions, rather than a true spread in the sense of a fresh or new area of infection (Fig. 3). This enlargement of the early lesion is not usually associated with exacerbation of the clinical course.

The unit type of spread is characterized by the formation of a fan or band which remains relatively constant as a unit for a few days and re-

cedes, but while clearing is followed by the development of another fan as a separate unit. The final film in a series of x-rays from a single case may, therefore, show several fans in various stages of development and recession in both lung fields (Fig. 5). The development of each fresh unit is ordinarily accompanied by clinical evidence of relapse.

The evplosive spread is indicated by the development of an initial lesion and the ensuing sudden, generalized involvement of the remainder of the lung or large areas of both lungs after a few days.

This spread of infection, in our experience, was invariably manifested by generalized soft swelling of the linear markings with scattered areas of patchy or soft nodular zones of infiltration and never by a homogeneous increase in density. Patients showing this type of spread, in our experience, have been very ill, often cyanotic, and occasionally required oxygen. These cases are apt to run a protracted clinical course (Fig. 6).

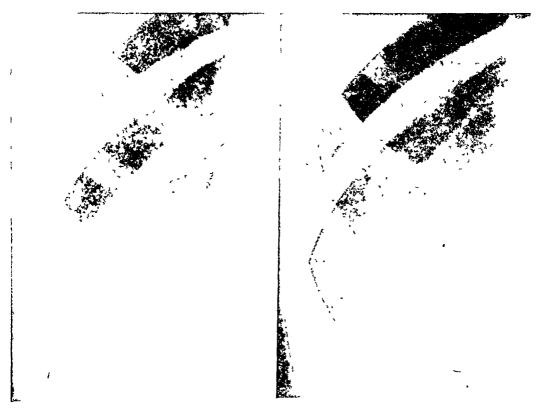


Fig. 7. A—Homogeneous zone of increased density in left base with enlarged trunk shadows leading from hilum. B—Six days later: pseudo-fibrotic interstitial infiltration frequently seen during resolution. In rare instances, beginning infiltration may have this same appearance

during some years and frequent during others. (2) The large nodular pattern, again, is basically the common type plus scattered soft nodules or patches (2 to 4 cm.) and has the appearance of a lobular pneumonia. A variable number of finer spots or nodules are usually associated with the larger ones. This type of infiltration was infrequent in early fans, but was the predominating pattern in the secondary areas of a spread (Figs. 1 and 2).

The Reverse Fan Type.—This type was next in order of frequency among our cases and was evidenced by a small area of infiltration developing in the outer portion of the lung field or in the cardio- or costophrenic angles, spreading back to the hilum to form a fan or band (Fig. 3). A variation occurred when these initial areas failed to extend and hence failed to connect with the hilum except by swollen trunk shadows (Fig. 7).

The Hilar Type.—Our criterion of hilar infection is increase in density, obscuring the hilar structures on one or both sides and not involving the adjacent lung field. This diagnosis is diffi-

cult and often impossible without comparative films. We were fortunate many times in being able to compare the initial film with the routine entrance physical examination film of the student and then to follow the recession by serial roent-genograms.

Unusual Types—(1) One per cent of our cases developed lobar consolidation. They began as partial infiltration and gradually spread through the remainder of the lobe (Fig. 4). (2) Apparent atelectasis, as evidenced by lobe contraction and elevation of the diaphragm, was rarely noted and the complete picture of lobe contraction, elevated diaphragm, mediastinal shift, and rib retraction was not encountered by us in atypical pneumonia. Fleishner lines, denoting residual atelectatic areas, have been noted in the bases of resolving cases in from one to two per cent of our atypical pneumonias.3 An early film showing productiveappearing infiltration, though infrequently encountered, is especially worthy of note. The first film showed, along the normal linear shadows, an irregular thickening which did not have the

toms and extent of the x-ray involvement cannot be expected to always coincide. At times, cases with a small area of involvement in some portion of the lung showed marked toxicity and others, with extensive areas of infiltration, did not appear very ill. Clinical improvement has been noted in the face of an apparent x-ray spread.

Walking cases among individuals were not The incidence was high among those reporting a persistent cough or a feeling of unusual weakness, following what they thought to be an ordinary grippy cold. A few such cases were found on ordinary routine physical examination.

#### X-Ray and Physical Findings

X-ray and physical findings did not coincide in a high percentage of the cases as is the usual experience of others. The exudative-appearing types were readily found and the central interstitial patterns were apt to be silent. In some instances, moist rales persisted for a few days to several weeks after the x-ray was negative and, in many others, radiographic evidence of residual interstitial thickening persisted after all physical signs had cleared. Occasionally a case was seen which presented the clinical course of an atypical pneumonia with physical signs of a bronchitis and with no definite lung infiltrate visible on repeated radiographs.

#### The X-Ray and Lung Pathology

Extensive pathologic study of atypical pneumonia has been impossible because of the rarity of postmortem material. However, during the past few years a sufficient number of reports from scattered cases have accumulated to give us a fair idea of the lung changes in the severer types of infection.

There has been considerable speculation as to the exact nature of the pathology in the mild, common type of case with the hazy overlay of the widened trunk shadows. The majority opinion, and it must be opinion, since no pathologic material is available, is that an edematous exudate is present; others think that atelectasis must be strongly considered as a factor.5 The basis for the nodular or patchy type of x-ray pattern is much clearer, for we now have definite reports of marked inflammation of the bronchial mucosa, infiltration and necrosis of the bronchial walls, peribronchial and perivascular infiltration, and edematous exudation into the alveoli. Small,

nodular infiltrations around the terminal bronchioles are commonly noted. Polymorphonuclear cells are abundant in the bronchi but not in the alveoli, where the mononuclear type dominates the picture. The large numbers of mononuclear cells arranged around the margins of the alveoli are considered by many as characteristic of this type of pneumonia. It is interesting to note that the particular combination of mononuclear cellular infiltration with the formation of fine peribronchiolar nodules has been frequently described during the past half century in association with bronchopneumonias secondary to viral infections in general, measles and influenza in particular.6-11

#### Summary and Conclusions

A résumé of nine years radiographic observation of primary atypical pneumonia is presented, describing original patterns, modes of spread, and methods of clearing. Experience in studying this disease through various outbreaks during the same year and during different years has led us to draw certain conclusions, namely:

- 1. The radiographic appearance is characteristic but not diagnostic in the majority of cases. Somewhat similar patterns may arise from the inflammatory reaction to many irritants-virus, rickettsia, protozoa, fungi, bacteria. chemical fumes, or mechanical agents.
- Diagnosis is dependent upon correlation of history, clinical findings, radiographic evidence, and bacteriologic study.
- 3. The onset, development, and recession of the disease as revealed by serial films are its most distinctive roentgenographic features when differentiating primary atypical pneumonia from other pulmonary pathology.

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The greatest tuberculosis case-finding project in the history of medicine is still under way through

the Selective Service examinations.-Editorial in The Modern Hospital, Oct., 1943



Fig. 9. A-Hazy fan from lower horn of right hilum with middle lobe distribution and marked tenting of right leaf of diaphragm. B-Oblique view reveals hazy fan to be an effusion in fissure between middle and lower lobe.

#### Recession or Clearing

Our cases presented two distinct methods of clearing: (1) Many of the single homogeneous fans became progressively less dense and disappeared within a week from beginning resolution. (2) All of the nodular and some of the homogeneous density types gradually lost their soft appearance as the acuity of infection subsided, developing into a more organized-appearing infiltrate (Fig. 7). This pseudofibrotic infiltration was either linear or finely nodular or consisted of small irregular deposits. These deposits, in turn, were frequently observed to be aggregates of minute nodules. Complete resolution usually required from one to two weeks. The longest time observed by us from beginning of resolution to complete clearing was ten weeks.

A case first found during this stage might readıly be labeled chronic lung disease unless diagnosis is reserved for several weeks. This problem arises where large numbers of routine physical examinations are being done. History of grippe or a cold with cough during the past month or so leads one to suspect that these shadows represent the clearing stage of an atypical pneumonia; later x-ray confirms it (Fig. 8).

#### Complications

Reports concerning pulmonary complications

have been rather inconsistent. Many observers have seen no complications while others have reported considerable severe complicating pleuritis. We have seen a variation in pleural complications; none during some seasons and about 2 to 3 per cent in others. The pleural involvement was confined with equal frequency to small collections of fluid or pleural thickening in the costophrenic angle or to localized effusions in the various fissures. These fissure effusions, when between the upper and lower or middle and lower lobes, resemble a light, hazy, uniform lung infiltration but are much more persistent. We feel that such a shadow, persisting for a week without change, warrants a lateral or oblique view (Fig. 9).

A few relapses were noted after the disappearance of the lung shadows and apparent clinical recovery. They presented recurrence of clinical findings with reappearance of radiographic density in the original area involved. The recovery course was similar to that of the original attack.

## X-Ray and Toxicity of the Patient

Obviously, a radiograph cannot reveal extensive infection before definite inflammatory reaction has occurred; neither can it determine virulence of the infective agent nor the resistance of the patient. Hence the severity of the symptoms and extent of the x-ray involvement cannot be expected to always coincide. At times, cases with a small area of involvement in some portion of the lung showed marked toxicity and others, with extensive areas of infiltration, did not appear very ill. Clinical improvement has been noted in the face of an apparent x-ray spread.

Walking cases among individuals were not uncommon. The incidence was high among those reporting a persistent cough or a feeling of unusual weakness, following what they thought to be an ordinary grippy cold. A few such cases were found on ordinary routine physical examination.

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The greatest tuberculosis case-finding project in the history of medicine is still under way through

#### CANCER REPORTING IN NEW YORK STATE

Morton L. Levin, M.D., Dr.P.H., Albany

ANCER reporting in upstate New York began on January 1, 1940, following legislation enacted in accordance with recommendations made by the State Legislative Cancer Survey Commission1 in its "Final Report" of February, 1939. These recommendations had previously received the endorsement of the Medical Society of the State of New York, through its Council. Thus from its inception cancer-morbidity reporting in New York State has had the active support of the medical profession.

The first step taken to institute reporting was to inform, by letter, each physician, hospital superintendent, and director of a pathologic laboratory of the provisions of the reporting law, which states that hospital and laboratory authorities as well as physicians shall report any case of cancer or other malignant tumor which comes to their notice. The reporting form was made as simple as possible; the information called for includes the patient's name, address, age, sex, color, marital status, the date of onset, the clinical and pathologic diagnosis, and the stage of disease. Pathologic laboratories were permitted to report by means of a carbon copy of the report which they would ordinarily make to the physician or for the hospital record. This greatly facilitated reporting by the laboratories, most of which have insufficient clerical help to make out separate cancer reports.

During the first year of cancer reporting Dr. Louis C. Kress, Director of the Division of Cancer Control, spoke before each meeting of the various District Branches of the Medical Society throughout the State, describing the system of cancer reporting and the purposes it was designed to serve. The fact that cancer reports are handled as confidential communications was emphasized.

The steps taken to inform the physicians and to obtain their active support are stressed because physician cooperation is essential to the success of any new type of morbidity reporting. The results in New York State, judged from the volume of total reports, the number of new cases reported, and the ratio of cases to deaths justify this view and indicate that cancer reporting has had the continued support of the physicians of the State.

Presented before the Cancer Symposium, in association with the Seventy-Second Annual Meeting of the American Public Health Association, New York City, October 11, 1943.
Assistant Director, Division of Cancer Control, New York
State Department of Health.

As would be expected in the reporting of any chronic disease, the largest number of reports was received during the first year (as will be seen from Table 1). The number of reports of "new" cases (that is, those reported for the first time) has decreased each year by approximately 20 per cent; this decrease is expected to continue until the number of new cases is stabilized at a level approximating the number of deaths plus the number of cured cases. In 1942, the third year of reporting, the number of new cases reported exceeded the number of deaths by 36 per cent.

#### Completeness of Reporting

Probably the most severe criterion of the completeness of cancer reporting is the percentage of deaths which have been reported previously as cases. This is a severe test because many cases of cancer are not correctly diagnosed until after death or shortly before death. The autopsy studies of Pohlen and Emerson<sup>2</sup> indicate that in certain classes of hospitalized patients as many as 20 per cent of cancer cases may be unrecognized clinically. Obviously such cases would not be reported prior to death. The percentage of cancer deaths previously reported was 55 per cent during the first year of reporting and now varies from 55 to 63 per cent. In two-thirds of the remaining unreported deaths a separate case report is received after death. These are of value because often they contain more accurate data than that obtainable from the death certificate. A case report is thus obtained for almost 90 per cent of all deaths from cancer in the State. Judged in this way, the completeness of cancer reporting compares favorably with that of other diseases which have been reportable for a much longer time.

#### Cancer Prevalence

The total number of known individuals with cancer alive at some time in 1942, as indicated by reporting during 1940-1942, was 35,378, giving an annual prevalence rate of 579 cases per 100,000 population. This is 3.6 times the mortality rate (Table 2). It will be recalled that usually an estimate of cancer prevalence is based on a ratio of 3 cases per death. Allowing for incompleteness of morbidity reporting, these figures for New York State indicate that this ratio is probably too low, and that prevalence may be four or five times as great as mortality. Estimates of prevalence based on mortality are

Table 1.—Cancer Reporting in New York State, Exclusive of New York City—Number of Reports and New Cases

			Reports per
Year	New Cases	All Reports	New Case
1940	. 20,792	41,783	2.0
1941	. 16.231	32,304	2.0
1942	13,391	24,737	1.8

used extensively to gage the extent of the cancer problem in terms of living cases. For example, recently in a New York State Health District, the District Health Officer had occasion to estimate the number of nurses needed to provide home nursing care for cancer patients in his district. Since nursing care varies with the type of cancer, one of the factors entering the health officer's estimate was the number of cases of each type of cancer which would be expected to occur in the district. Reference to Table 2 will show how greatly the ratio of living cases to deaths varies by site of cancer. According to these figures, for each death from skin or lip cancer there are 30 living cases; from breast and uterine cancer there are 5 cases; from cancer of the stomach and intestines, fewer than 2 cases; and from lung cancer, one case.

Information of this kind makes possible more accurate estimates regarding the extent of cancer as a health problem in terms of living patients having various forms of cancer. These figures indicate that the types of cancer which will be encountered most frequently in any program directed toward living cases will be in the following order: cancer of the skin, the breast, the uterus, the stomach, and the intestines. Among men the five most frequent sites, in order of decreasing prevalence (rather than mortality), are the skin, the prostate, the stomach, the lip, and the lower intestinal tract. Among women, the breast, the uterus, the skin, and the upper and lower intestinal tract are the most frequent sites, in decreasing order.

#### Duplication of Reports.

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Many physicians interested in cancer morbidity data were apprehensive lest duplicate reports on the same patient would be counted as separate cases. Duplication of reports is to be expected, since a patient may be treated by more than one physician, or may have several hospital admissions or more than one biopsy. An average of two reports for each new case was received during the first two years of reporting; the number has decreased slightly since then (Table 1). To prevent counting duplicate reports twice, each new case report as it is received is checked against a master file of all previously reported cases to determine whether or not it is a duplicate report.

TABLE 2.—Cancer\* in New Yore State, Exclusive of New Yore Citt, 1942—All Living Cases, New Cases Reported, and Deaths (Both Sexes)

	λŢı	Case	ber of s per ath		
		imber of New	Cases	All	New
Site	All Casest	Cases‡	Deaths §	Савез	Cases
Skin	6,203	1,481	201	30.9	7.4
Breast	5,639	1,720	1,086	5.2	1.6
Uterus	4,498	1,330	905	5.0	1.5
Stomach	1.798	1,145	1,334	1.3	0.9
Intestines (ex-	-,		-,		
cept rectum)	1,723	990	1,180	1.5	0.8
Rectum and	-,		-,		
anus	1,691	723	597	2.8	1.2
Prostate	1.314	585	508	2.6	1.2
Bladder	1.168	394	367	3.2	1.1
Lip	1,088	244	39	27.9	6.3
Övary	772	345	279	2.8	1.2
Tongue and		010	2.0	2.0	
mouth	620	141	110	5.6	1.3
Lung and	010			0.0	
pleura	533	371	544	1.0	0.7
Leukemia	447	253	277	1.6	Ŏ.9
Brain	430	198	117	3.7	1.7
Pancreas	413	239	314	1.3	0.8
Other sites	7.041	3.185	1,993	3.5	1.6
Allsites	35.378	13,344	9,851	3.6	1.4
	00,010	10,011	2,002	0.0	1.1
Rates per 100,000					
population	579.0	218.4	161.2		

\*Includes leukemia, Hodgkin's disease, and deaths from "Tumors of Unspecified Nature."
† Includes all cases living at any time during the year, including cases reported by death certificate alone.
‡ Does not include new cases reported by death certificate

Diagnosis classification in this column is as stated on the death certificate.

Reference to Table 3 shows that approximately half of the first reports are made by physicians and 40 per cent by hospitals. Second or duplicate reports come chiefly from hospitals and labora-The second report often supplements the first and furnishes more accurate or additional information. At the end of the year all reports on the same patient are combined and the pooled information is punched on a master punch card for filing and tabulation in the state wide cancer roster at Albany.

#### Cancer Rosters

In addition to the state-wide cancer roster or register, a cancer roster is maintained in upstate New York by each city department of health, each county department of health, and in nineteen of the twenty district state health offices throughout the State. The one district omitted is that covering the area surrounding New York City, which is served by full-time county and

TABLE 3.—Cancer-Morbidity Reporting in New York State, Exclusive of New York City, 1942—Source or Reports

	New Cases Per-		Duplicate Repor	
Source	Number	centage	Number	centage
Physicians Hospitals Laboratories State Institute	6,910 4,105 1,133 1,243	51.6 30.6 8.5 9.3	1,814 2,087 4,860 2,585	16.0 18.4 42.8 22.8
	13,391	100.0	11,346	100.0

city health departments. Thus in each area served by a local health unit, whether district, county, or city, there exists a current cancer register for use in connection with whatever cancer activities may concern the local health agency.

These local cancer rosters are inter-related. If a patient moves from one district to another, or if a patient living in one district attends a clinic or is admitted to a hospital in another district, the system of reporting records this fact in both cancer rosters. Through the central cancer roster in Albany, information regarding a patient listed in any local roster is made available to any other district which may be interested in the same patient.\*

#### Discussion

The two questions regarding cancer reporting which are probably of greatest interest to those engaged in cancer control are: first—is cancer reporting useful, and, second—is it practical or workable?

As has been indicated, the practicability of cancer reporting depends principally upon the cooperation of the medical profession. In addition, special efforts must be made to obtain case reports from hospitals, laboratories, and physicians who, for one or another reason, fail to report their cases.

The usefulness of cancer reporting, assuming that a large proportion of cases will be reported, depends in part on the type of cancer control program in operation and the facilities at the disposal of this program. In a program devoted largely to public education, for example, cancer reporting would serve chiefly two functions: first, to furnish statistical information regarding cancer morbidity in various localities; second, to furnish information regarding progress in cancer control as indicated by the stage of the disease and the cure rates in each local area. If the control program involves active aid to or interest in tumor clinics, cancer reporting can be made to serve an important function in the operation of such clinics. If the control program includes some type of nursing or follow-up service in the patient's home, reporting may be highly useful in the efficient administration of such a service.

The utilization of cancer reports as a basis for epidemiologic or clinical investigations is a field bounded almost solely by the ingenuity and the resources of the investigator.

#### Uses of Cancer Reporting in New York State

In the New York State cancer program, cancer reporting has proved to be of value in each of the ways outlined hereinbefore.

In epidemiologic research, cancer reports are providing basic information which will make it possible to measure progress in early diagnosis and reduction of mortality. From 1940 on, reporting made possible the measurement of trends in mortality on the basis of accurately diagnosed cases, as distinct from other cases. It will be possible to estimate the cure rates of different types of cancer in different age groups in different sections of the State and in different population segments.

We believe the outstanding epidemiologic problem in cancer to be the discovery of groups which are exposed to increased risk of developing cancer. For such research, detailed histories are usually necessary. Cancer reports, however, can be used as a basis for obtaining such histories in a random sample of reported cases, eliminating whatever selective factors might operate if only hospital cases were utilized. The correlation of cancer reports with other morbidity and mortality data routinely received by a health department also offers interesting possibilities for research. For example, by comparing reported cancer cases with the state-wide file of previously reported syphilis cases, there appeared an unexpected correlation between syphilis and cancer of the cervix.3 Such an observation points the way for further investigation, especially along the lines of case finding. Obviously, research in the epidemiology of cancer can be made on various types of data, of which cancer reports are only one.

From the standpoint of public education, the most useful contribution of cancer reporting has been that it enables us to base our facts and figures on living cases rather than on deaths. A second point of value is that speakers in a particular community can refer to the data for that locality. News reports based on local case incidence are more readily accepted by the press and receive greater attention from the public. Physicians lecturing before medical meetings also make use of the information on the incidence of various types of cancer in preparing their material.

A valuable further use of the cancer roster is in helping tumor clinics to maintain a follow-up system. Complete follow-up of cancer patients is essential for the evaluation of therapy, as well as for proper health supervision of patients. Most clinics experience great difficulty in tracing all their patients. The cancer roster, through its

<sup>\*</sup> It is a pleasure to acknowledge here the work of Miss Frances King, formerly supervisor of Local Health Records, New York State Department of Health, whose early interest in the office organization of the cancer rosters contributed greatly to their efficient functioning.

correlation with mortality records, makes it possible to inform a clinic of the death of any of its patients in or outside the state, thereby eliminating unnecessary attempts at follow-up in such cases. The roster also enables one clinic to ascertain whether a patient has come under the care of another clinic, physician, or hospital anywhere in the State and to obtain the benefit of the observations of the latest physician who sees the patient, as recorded on the cancer case report. This latter use of the roster, of course. must be such as not to violate the confidential character of cancer reports, prescribed by law.

Probably the most important administrative function of cancer reporting is its use in connection with nursing service to cancer patients. The need for home nursing care of cancer patients is generally recognized. In several counties and districts of the State, cancer reports are routinely used in the same manner that other morbidity reports have been used in the past-as a means of determining whether nursing service is needed and desired, and, if it is, what type of service should be rendered. The system of cancer reporting also makes it possible to remind the physician of the availability of the nursing service at a time when he is most interested—i.e., when he has a patient who may need it. extension of nursing service to cancer patients has been considerably hampered by the shortage of nurses caused by the war. On the other hand, the need for such service for cancer patients has increased. Cancer reporting has greatly aided in the efficient utilization of such public health nursing facilities for cancer patients as are avail-

#### Summary and Conclusion

In summary, our experience with cancer reporting in New York State indicates that reporting is practicable in areas where the medical profession is informed about and sympathetic with the aims of reporting and the cancer program in general. The completeness of cancer reporting compares favorably with that of other reportable diseases. Cancer reporting has proved usefulfirst, in providing material for epidemiologic investigation and for evaluation of progress in cancer control: second, in public education; third, in professional education; fourth, in aiding the follow-up of cancer patients: and, fifth, in the administration of public health nursing service to cancer patients.

#### Reference

1. Report of the New York State Legislative Cancer Survey Commission. Legislative Document (1939) No. 64. Albany, Feb. 15, 1939. 2. Pohlen, Kurt, and Emerson, Haven Am. J. Pub. Health 32: 251 (March) 1942. 3. Levin, Morton L., Kress, Louis C., and Goldstein, Hyman: New York State J. Med. 42: 1737 (Sept. 15) 1942.

#### APRIL—CANCER CONTROL MONTH

By proclamation of the President, as authorized by Congress, the month of April will again be observed as Cancer Control Month throughout the United States. During this time, the Women's Field Army of the American Society for the Control of Cancer will applied a intensive petiton-wide of Cancer will conduct an intensive nation-wide educational campaign against a disease which is one of the most ruthless killers on the homefront.

Tens of thousands of persons in the United States die needlessly from cancer each year because they put off a visit to their physician after they have discovered telltale signs. Delay makes cancer the second highest cause of death in the United States.

With every tick of the clock, the Women's Field Army is spreading knowledge, given to them by the medical profession, which will help to guard themselved selves, their families, and their friends against this

More and more people are learning that time is the crucial factor in cancer control and are being treated when the disease is still localized and susceptible to complete removal or destruction. The Women's Field Army in some areas also gives direct help to the medical profession throughout the year by making surgical dressings and bandages for needy cancer patients and by helping them to obtain diagnosis and treatment.

Both men and women are asked to enroll in this organization and to participate actively in its

Enlistments may be arranged through local units of the Women's Field Army or through the American Society for the Control of Cancer, Incorporated, 350 Madison Avenue, New York 17. New York .--Health News

#### ACADEMY ANNOUNCES 1944 GRADUATE FORTNIGHT

The annual Graduate Fortnight of the New York Academy of Medicine will take place October 9-20, on the subject, "Infections and Their Treatment."

Special emphasis will be placed upon the more recent chemotherapeutic agents.

The Fortnight, as in the past, will include morning panel discussions, afternoon hospital clinics, evening lectures, and pathologic demonstrations. There will also be a scientific exhibit, including the more recent pharmaceuticals and an appropriate library exhibit.

For information and registration, address the Secretary, Committee on Medical Education of The New York Academy of Medicine, 2 East 103rd Street, New York 29, New York.

city health departments. Thus in each area served by a local health unit, whether district, county, or city, there exists a current cancer register for use in connection with whatever cancer activities may concern the local health agency.

These local cancer rosters are inter-related. If a patient moves from one district to another, or if a patient living in one district attends a clinic or is admitted to a hospital in another district, the system of reporting records this fact in both cancer rosters. Through the central cancer roster in Albany, information regarding a patient listed in any local roster is made available to any other district which may be interested in the same patient.\*

#### Discussion

The two questions regarding cancer reporting which are probably of greatest interest to those engaged in cancer control are: first—is cancer reporting useful, and, second—is it practical or workable?

As has been indicated, the practicability of cancer reporting depends principally upon the cooperation of the medical profession. In addition, special efforts must be made to obtain case reports from hospitals, laboratories, and physicians who, for one or another reason, fail to report their cases.

The usefulness of cancer reporting, assuming that a large proportion of cases will be reported, depends in part on the type of cancer control program in operation and the facilities at the disposal of this program. In a program devoted largely to public education, for example, cancer reporting would serve chiefly two functions: first, to furnish statistical information regarding cancer morbidity in various localities; second, to furnish information regarding progress in cancer control as indicated by the stage of the disease and the cure rates in each local area. If the control program involves active aid to or interest in tumor clinics, cancer reporting can be made to serve an important function in the operation of such clinics. If the control program includes some type of nursing or follow-up service in the patient's home, reporting may be highly useful in the efficient administration of such a service.

The utilization of cancer reports as a basis for epidemiologic or clinical investigations is a field bounded almost solely by the ingenuity and the resources of the investigator.

#### Uses of Cancer Reporting in New York State

In the New York State cancer program, cancer reporting has proved to be of value in each of the ways outlined hereinbefore.

In epidemiologic research, cancer reports are providing basic information which will make it possible to measure progress in early diagnosis and reduction of mortality. From 1940 on, reporting made possible the measurement of trends in mortality on the basis of accurately diagnosed cases, as distinct from other cases. It will be possible to estimate the cure rates of different types of cancer in different age groups in different sections of the State and in different population segments.

We believe the outstanding epidemiologic problem in cancer to be the discovery of groups which are exposed to increased risk of developing cancer. For such research, detailed histories are usually Cancer reports, however, can be necessary. used as a basis for obtaining such histories in a random sample of reported cases, eliminating whatever selective factors might operate if only hospital cases were utilized. The correlation of cancer reports with other morbidity and mortality data routinely received by a health department also offers interesting possibilities for research. For example, by comparing reported cancer cases with the state-wide file of previously reported syphilis cases, there appeared an unexpected correlation between syphilis and cancer of the cervix.3 Such an observation points the way for further investigation, especially along the lines of case finding. Obviously, research in the epidemiology of cancer can be made on various types of data, of which cancer reports are only one.

From the standpoint of public education, the most useful contribution of cancer reporting has been that it enables us to base our facts and figures on living cases rather than on deaths. A second point of value is that speakers in a particular community can refer to the data for that locality. News reports based on local case incidence are more readily accepted by the press and receive greater attention from the public. Physicians lecturing before medical meetings also make use of the information on the incidence of various types of cancer in preparing their material.

A valuable further use of the cancer roster is in helping tumor clinics to maintain a follow-up system. Complete follow-up of cancer patients is essential for the evaluation of therapy, as well as for proper health supervision of patients. Most clinics experience great difficulty in tracing all their patients. The cancer roster, through its

<sup>\*</sup> It is a pleasure to acknowledge here the work of Miss Frances King, formerly supervisor of Local Health Records, New York State Department of Health, whose early interest in the office organization of the cancer rosters contributed greatly to their efficient functioning.

ously, and formerly it was felt that in the hypertensive individual there was an increase in the peripheral resistance because of an increased tone of the splanchnic arterioles. If vasoconstriction were limited to the splanchnic vessels, it would be expected that the resulting hypertension should increase the flow of blood in other organs, particularly the skin. Yet it is known that the blood flow in the extremities remains normal. It appears that in a patient with essential hypertension there is a widespread increase in arterial tension throughout the entire vascular system. In view of the fact that the capacity of the vascular bed is greater than the total volume of the circulatory blood, active vasoconstriction must be in force over the arterial system to insure the vital organs an adequate blood flow (White and Smithwick).8

Because spasm of the splanchnic vessels was considered to be an exciting factor in essential hypertension, the surgical attack upon the sympathetic nervous system was undertaken to increase the flow of blood to the splanchnic bed by resection of the sympathetic ganglia for hypertension. Craige in 1934 and Craig and Adson<sup>10</sup> in 1939 advocated the removal of the first and second lumbar ganglia with division of the greater splanchnic nerve and a portion of the celiac ganglion. This operation was a two-stage procedure below the diaphragm and is referred to as a subdiaphragmatic sympathectomy. Peet<sup>11</sup> in 1935 advocated the removal of the lower three dorsal ganglia and trunk with a segment of the greater splanchnic nerve on each side by removing a portion of the eleventh rib. This procedure was carried out as a one-stage operation. Crile12 in 1937 removed the celiac ganglion with the greater and lesser splanchnic nerves as a twostage procedure. Smithwick13 in 1940 advocated the supra- and infradiaphragmatic sympathectomy, which in reality is a combination of the Adson and Peet operations. After the supradiaphragmatic operation, the blood-pressure did not remain down and Smithwick added a subdiaphragmatic procedure, with improvement in the patient's condition.

The splanchnic bed cannot be completely denervated of its sympathetic fibers by either the supra- or subdiaphragmatic procedure and therefore one should not expect to get the maximum result from operative procedure unless the splanchnic bed is completely denervated, as has been emphasized by White and Smithwick. Sympathetic fibers go from the lower sixth thoracic and the first and second lumbar ganglia and, of course, through the greater, lesser, and least splanchnic nerves. The celiac ganglion sympathectomy seems to be contraindicated, as it results in a postganglion denervation which

makes the vessels sensitive to adrenalin, according to the work of White, Okelberry, and White-law.<sup>15</sup>

In Doctors' Hospital and New York Post-Graduate Hospital between February, 1942, and October, 1943, thoracolumbar sympathectomy, which includes removal of the ninth, tenth, eleventh, and twelfth thoracic and first and second lumbar ganglia and chain, with 6 inches of the greater splanchnic nerve and the lesser and least splanchnic to the celiac ganglion, has been performed on 40 patients. Dr. Carnes Weeks had operated upon over 40 cases of essential hypertension before entering the service in February, 1942, and asked me to continue the work. Therefore I had the opportunity to assist him with ten operations before undertaking any personally. This series of cases is obviously not large, but one can draw some conclusions as to selection of patients, anesthetic problems, and the technical difficulties encountered by the novice in this field of surgery.

The great difficulty is the selection of patients for operation. Even in advanced cases, the operation may provide some relief, particularly from disabling headaches, and may add months, if not years, of life. The four groups into which hypertensive cases have been divided merely provide a means of expressing the degree of associated pathologic changes, and obviously if the majority of cases fall into Groups 1 and 2, the mortality will be essentially zero, and the end results most gratifying. Unfortunately, cases which belong in Groups 3 and 4 are frequently seen and naturally they are not the ideal type for the best end results, but they may be entitled to the benefits of surgery after careful clinical study.

It was with definite mental reservations as to end results that I undertook sympathetic surgery for essential hypertension and for that reason I was more than willing to operate upon the advanced cases if the internist and the patient requested surgery. If relief could be afforded individuals with papilledema, renal insufficiency, impending uremia, and marked cardiac damage. then obviously the more favorable cases would give excellent results. Patients in Group 1 or 2 may go for some years before developing papilledema, renal insufficiency, and marked cardiac damage, and the internist has a logical argument as to whether surgery has done all one claims for it in the uncomplicated cases and whether medical management could not have accomplished just as much in these early cases. It is obvious that improvement in these advanced cases after operation must be attributed to the interruption of the vascoconstrictor fibers of the sympathetic system with a pooling of the blood in the splanchnic area.

The type of anesthesia to be employed in

## THORACOLUMBAR SYMPATHECTOMY IN ESSENTIAL HYPERTENSION

#### J. WILLIAM HINTON, M.D., New York City

A DIAGNOSIS of essential hypertension indicates an abnormally high systolic and diastolic arterial pressure, in the absence of inflammatory kidney disease, urinary tract obstruction, or other disorders which are known to cause high blood pressure.

Hypertension is frequently encountered in clinical practice. Master, Marks, and Dack¹ found that among 15,000 persons over 40 years of age 41 per cent of the men and 51 per cent of the women had a blood pressure reading of 150/90 or higher. The New York City Department of Health in 1941 reported an incidence of hypertension in one-third of the population 40 years of age or older.² The disease is therefore of vital interest to every physician.

In 1939 Schroeder and Steele<sup>3</sup> reported that of 218 cases of essential hypertension studied at the Rockefeller Institute over a period of ten years, 90 of the patients were dead, 11 were not followed, and 117 were living. These 117 cases were studied within two years from the onset of the disease. A classification of hypertension cases

is most difficult, but Schroeder and Steele gave four organic classifications which include:

Renal disease:

(a) Glomerulonephritis

(b) Urinary obstruction

(c) Polycystic kidneys

(d) Pyelonephritis

- (e) Aberrant arterial supply to the kidney
- (f) Wilms' tumor
- 2. Diseases of the nervous system:

(a) Tumors of the brain

- (b) Diseases of the nervous system, such as bulbar poliomyelitis
- 3. Diseases of the endocrine system:
  - (a) Basophilic tumors of the pituitary
  - (b) Tumors of the adrenal gland
  - (c) Tumors of the ovary—namely, arrhenoblastoma
- 4. Diseases of the arterial system:

Generalized arteriosclerosis

5. Unclassified, which probably fell chiefly into Groups 2 and 3.

A most careful clinical investigation must be carried out before patients can be grouped into the so-called "essential" hypertension category. Schroeder and Steele suggested that essential

before the joint meeting of the Onondaga County Real Society and the Syracuse Academy of Medicine, Medical 9, 1943.

hypertension is not a primary disease, and the fact that the diagnosis is made by exclusion should indicate multiple causes.

Hypertension cases have been divided into four groups, depending upon the severity of the eye-ground changes, for purposes of clinical correlation of end results:

Group 1. Arteriolar construction only, with normal renal function.

Group 2. Tortuosity and nicking veins at crossings, with normal renal function.

Group 3. Marked arteriolar changes, associated with retinitis with hemorrhage or exudate, or both, with impaired renal function.

Group 4. Malignant hypertension because of the papilledema with hemorrhage and exudate, and marked impaired renal function.

#### Technic of Operation

The surgical approach to hypertension has been through the sympathetic nervous system. Gaskell and Langley divide the autonomic system into the sympathetic or thoracolumbar division, including the thoraco- and first and second lumbar segments, and the parasympathetic or the craniosacral division. It is the sympathetic or thoracolumbar division that interests us in this presentation, and more specifically the portion of the thoracolumbar which supplies the splanchnic area. The sympathetic fibers come from the seventh, eighth, ninth, tenth, eleventh, twelfth thoracic and first and second lumbar ganglia, in conjunction with the greater, lesser, and least splanchnic nerves, which supply the splanchnic bed.

The body is constantly protected by the sympathico-adrenal system, as this mechanism prevents loss of heat during exposure to cold by vasoconstriction of the peripheral vessels. It is likewise a means of preventing shock from trauma due either to accident or to operation. Therefore the surgeon is constantly aware of the protection afforded by the sympathico-adrenal system, whenever excess stress or strain is placed upon the individual, as has been emphasized by Cannon. He states that if emotion cannot be controlled, it should be worked off by physical exercise. Fulton states that the mental energy expended in an armchair can produce as much stress and strain as that produced from the crew

constriction of the splanchnic vessels can clevate the systemic blood pressure conspicu-

EKG: Reveals considerable myocardial damage, probably left axis deviation, digitalis effect.

X-Ray of Kidneys: Both kidneys small; both concentrate intravenous dye to a fair degree.

Course.—Because of persistent vomiting, digitalis finally was discontinued. Belladonna was no longer given. The patient received intramuscularly vitamin B complex, 3 cc. four times a day, and phenobarbital, 1 grain three times a day, by mouth. During the next five days the blood pressure fell to 203/130 and the pulse rate fell to 100. However, the urea nitrogen rose to 54 mg. per cent.

Autopsy.-Autopsy revealed marked cerebral arteriosclerosis, generalized arteriosclerosis, cardiac hypertrophy and dilatation, bilateral advanced pulmonary tuberculosis (cavity in left lung containing 500 cc. of fluid), chronic glomerulonephritis, and terminal bronchopneumonia.

This case gives evidence of reversibility of kidney function following a thoracolumbar sympathectomy. Previous to the first-stage operation the urea nitrogen was 54 mg. per cent and the urine contained 400 mg. per cent of albumin. Twelve days following the first-stage operation the urea nitrogen dropped to 38 mg. per cent and the urine showed 85 mg. per cent of albumin. Seven days after the second-stage operation the wea nitrogen dropped to 27 mg. per cent and the urine contained 65 mg. per cent of albumin. The patient survived the second-stage operation for two weeks and was ready to get out of bed when he suddenly became evanotic and dyspneic and died seventeen days later.

The question may arise, why was a patient in such an advanced stage of hypertension operated upon? The answer is that surgical intervention was urgently requested by one of the outstanding internists of New York, who had been an intimate friend of the patient for twenty-five years, and also by the patient and his wife. The patient's ambition was to live one more year in order to complete a particular assignment in Washington which he believed he could accomplish in that period of time if his life could be prolonged. It was felt by all concerned that his only chance lay in the performance of a thoracolumbar sympathectomy.

It is still too early to draw definite conclusions regarding the remaining 37 cases.

Cases 2 and 3.—Two of the patients are dead. One of them, a young man 27 years of age with papilledema and complete loss of vision, had a return of normal vision and returned to work ten weeks after leaving the hospital. He worked regularly for six months, but died from uremia ten months following operation. In this case operation was performed at the insistence of the patient's wife, as he had been refused surgery in one of the large clinics. The other patient was a young man, 21 years of age, who went blind in the interval between the two operations, regained his vision and lived for six months, but died from uremia after having returned to work for a period of three and a half months following opera-

Several of the remaining 35 cases were far advanced.

Cases 4 and 5.—One patient, a young man 21 years of age, referred by Dr. Mosenthal, had papilledema, 8 mg. per cent of albumin in the urine. blood pressure of 265/165, and was totally disabled.

He had had symptoms of hypertension for five years and had been treated at the Rockefeller Institute for hypertension with a blood pressure of 180/130 for two years before being operated upon. At the time of writing, one year after operation, he has been working regularly in a defense plant for the entire year of 1943. In the early part of September, 1943, he was married. His blood chemistry findings are normal. The urine shows a faint trace of albumin The blood pressure on September 15, 1943, was 150/106. This case also would seem to indicate that there is a reversibility in kidney function follow. ing thoracolumbar sympathectomy.

Another patient had been totally disabled for four and a half years and was retired on a small pension from a bank where he had been formerly employed. His blood pressure at the time of operation in June, 1942, was 200/120. Papilledema and blurring of vision were present. He had been seen at the Rockefeller Institute in January, 1942, by Dr. Harry Schroeder, who had advised against a sympathectomy, in view of the advanced condition of the patient's disease. At that time Dr. Schroeder was referring more patients for sympathectomies than any other physician in New York and was enthusiastic over the results. This case merely proves the difficulty of selecting patients for opera-This patient has been working for the past twelve months as a freight handler for the Pennsylvania Railroad, and his blood pressure, taken Ocber 12, 1943 by Dr. Blake Donaldson, was 130/90. His headaches, which were excruciating in character previous to operation, have entirely disappeared. A stellate ganglionectomy performed three years before the sympathectomy had failed to give any relief.

I have a number of patients in the more favorable groups who show excellent results, but it would be premature at this time to draw conclusions as to what percentage may be cured during this period of time in which I have been performing this operation. One definite impression is that in spite of all the various methods of studying these cases, including the sodium amytal test, cold pressor test, and refusing operation to patients over 50 years of age, it is difficult if not impossible, in the advanced cases, or in those falling in Groups 3 and 4, to forecast the end results of a thoracolumbar sympathectomy.

operating on patients with essential hypertension is most important. In Dr. Weeks' cases and in mine, we were fortunate in having Drs. Phelps and Burdick of Doctors' Hospital administer the anesthetic in the majority of instances. These authors recently presented a paper on this subject.16 In our experience we have found that endotracheal anesthesia is essential. cyclopropane or either is used will depend upon the physical findings in the individual case. It is essential that the blood pressure be maintained at 100 mm. of mercury or thereabouts. The blood pressure will drop to zero very suddenly when the operator grasps the greater splanchnic nerve. particularly in the second-stage operation. The anesthetist should be ready to administer neosynephrin as soon as the pressure drops to 100 mm. of mercury or below. A small amount of saline should be kept running intravenously; a 250 cc. bottle is adequate in order not to impose an excessive fluid load on the damaged circulatory system. One minim of 0.25 per cent neosynephrin is inserted directly into the tube, and is thus absorbed into the circulatory system instantaneously. The neosynephrin administration is repeated as often as is necessary to keep the blood pressure elevated at 100 mm. of mercury. The parenteral administration of fluids postoperatively should be guarded against, as overloading of the circulatory system may occur. If any supportive measure is needed it is better to give concentrated plasma, not over 250 cc.

One of the technical difficulties encountered in the operative procedure is the danger of opening the pleural cavity. If this occurs and positive pressure anesthesia by endotracheal administration is being employed, the lung is kept expanded during operation. After the operation has been completed air can be aspirated from the pleural cavity and the extrapleural space by catheter and suction. The opening in the pleura may be too small to be noticeable, but the patient will have a pneumothorax which may prove fatal. If there is any question of the lung's not being expanded after the operation has been completed it is better to insert a needle in the chest cavity and aspirate any air that may be present. In this way the circulatory system is relieved.

#### Results

Of the 40 patients upon whom I have operated, one case fell in Group 1, 4 in Group 2, 15 in Group 3, and 20 in Group 4. Ten of the 40 patients had been refused operation in well-known clinics. Among the 20 cases in Group 4 there were three hospital deaths, two from myocardial insufficiency, one of which occurred on the thirteenth day and the other on the third day following the first-stage operation. The third death was due to

the filling of a tuberculous cavity which had been present for twenty years.

Case 1.—This patient was a white man, 40 years of age, who had had pulmonary tuberculosis since The onset occurred two years after an attack of influenza. During the course of the tuberculosis there were several episodes of cough, fever, and marked hemoptysis. In 1924 a left posterior thoracoplasty was performed, followed in 1934 by a left axillary thoracoplasty. In spite of these two procedures, the cavity in the base of the left lung did not collapse and the sputum was persistently positive. In December, 1941, the patient became conscious of dyspnea on effort, which was mildly progressive. Since February, 1942, he had suffered from occipital headache, blurring of vision, occasional tinnitis, and nosebleed. In March, 1942, he noted occasional ankle edema, oliguria, and orthopnea. During that month, while he was in Boston, he had several attacks of paroxysmal dyspnea, apparently progressing to severe circulatory failure, evidenced by orthopnea, dyspnea, ankle edema, oliguria, and vomiting. He was given digitalis and belladonna and put on a low salt and liquid diet. He apparently recovered from cardiac failure, since at the time of admission to the hospital the only symptoms were mild dyspnea and vomiting.

Physical Examination.—Physical examination revealed a mildly dyspneic, malnourished individual, with no icterus, edema, or ascites. The fundi showed bilateral papilledema, considerable auriculoventricular nicking, a/v = 1/3, and numerous old and Mild tinnitis was present. fresh hemorrhages. The neck veins were moderately dilated but did not fill from below. There were no arterial pulsations. The left side of the chest showed evidence of a previous thoracoplasty in the axillary and posterior basal areas. The chest did not expand to a normal degree. Some dullness and amphoric and bronchial vesicular breath sounds with medium and coarse moist rales were noted over the left posterior and axillary lower half of the lung. A pleural rub was heard consistently over the precordial area. The right lung was clear to percussion and auscultation.

Heart: RMD, 6 cm.; ML, 10 cm.; MR, 4.5 cm. The sounds at the apex and base were loud and of good quality. The aortic second sound was snapping and considerably greater than the pulmonic second sound. There were no thrills or murmurs. RSP, VP = PR = 130; blood pressure 260/160.

Abdomen: No viscera palpable, no ascites, no peripheral edema or arterial sclerosis.

Laboratory Data.—Blood: Red blood cells 4.03, hemoglobin 83 per cent, white blood cells 8,800, polymorphonuclears 77 per cent, lymphocytes 18 per cent, monocytes 4 per cent, and urea nitrogen 30.6 mg. per cent.

Urine: Specific gravity 1.012, albumin 3 plus, fine granular casts, occasional red blood cells, fish-berg-concentrates to 1.020, PSP—25 per cent excreted in two hours; and the specimen did not reveal presence of acid-fast organisms in fresh sediment or in concentrates.

Sputum: Positive for tuberculosis.

### Diagnosis

#### CLINICOPATHOLOGIC CONFERENCES

FOURTH MEDICAL DIVISION OF BELLEVUE HOSPITAL

Date: March 2, 1944

Conducted by: Dr. Emanuel Appelbaum

Dr. Mary B. Finck: R. A., a 39-year-old Jewish housewife, was admitted to Bellevue Hospital on November 27, 1943. Her illness began in January, 1943, eleven months before admission. At that time the patient caught a "head cold" which persisted for three months. A diagnosis of nasal polyps and sinusitis was made at the outpatient department of another hospital and drainage of the left antrum was done, with little benefit. Skin tests for allergy revealed sensitivity to weeds and asparagus. The patient gradually improved and in June went to her accustomed place in the country. One week after arrival she had her first attack of bronchial asthma. This was relieved by adrenalin and the patient remained well until she returned to the city in September, when she again developed bronchial asthma and was treated at an institution near her home. On discharge from that hospital, four weeks before admission to Bellevue Hospital, the patient noticed weakness, dyspnea, marked difficulty in walking because of sharp, stabbing pains in the legs, loss of appetite, rapid weight loss, and numbness, tingling, and weakness of the hands. Sulfathiazole, prescribed by a private physician, produced nausea and epigastric burning, and was discontinued after two days.

The past history was negative except for several mild attacks of "rose fever" on first going to the country in the summer. The family history revealed that the patient's mother had died of asthma at the age of 51, and both of the patient's sons have "rose fever" in the spring.

Physical examination on admission revealed a moderately well-nourished and well-developed white woman. She did not appear ill but was extremely apprehensive and emotionally unstable. The temperature was 100.2 F.; the pulse, 90; respirations, 28; and the blood pressure, 142/88. The head and neck appeared normal except for a small nodule in the right lobe of the thyroid. The lungs showed a few scattered rales in the right lower chest. The heart was rapid in rate but it was otherwise normal. Examination of the abdomen disclosed only a barely palpable, slightly tender liver edge.

The deep reflexes were hyperactive but there were no abnormal neurologic signs.

Laboratory Data.—On admission, the red blood count was 4,200,000, with 14.5 Gm. of hemoglobin. The white blood count was 46,600, with 38 per cent polymorphonuclears, 4 per cent stab forms, 18 per cent lymphocytes, and 48 per cent eosinophils. Urinalysis showed a specific gravity of 1.024, 2 plus albumin, and a few hyaline casts and white blood cells. The phenolsulfonphthalein kidney function test showed 11 per cent excretion in two hours. The blood Wassermann reaction was negative. Blood agglutinations for typhoid, paratyphoid, Brucella, and Weil-Felix were negative. The blood nonprotein nitrogen was 34 mg. per cent; the calcium, 8.4 mg. per cent; and the phosphorus. 3.85 mg. per cent. The albumin-globulin ratio was 3.6/3.2 Gm. per cent. Liver function tests showed normal results. Erythrocyte sedimentation rate was 25 mm. per hour. The cerebrospinal fluid showed no abnormality. Trichinosis precipitation test and complement fixation test for same were both negative. A muscle biopsy was done on December 15, 1943. An electrocardiogram on admission showed a sinus tachycardia and a seagull T wave in lead I. Later electrocardiograms showed a gradual improvement in the T wave. X-rays of the sinuses showed diffuse clouding of all the accessory sinuses. Chest plates on December 22 and December 27 showed diffuse bronchopneumonic infiltrations of both lungs, more marked in the left mid-lung field. Chest x-ray on January 20. 1944, revealed clear lung fields and a normal heart and aorta.

Course.—The patient ran a low grade fever with relative tachycardia. The blood pressure remained around 130/80. Muscle pains required almost constant analgesia and sedation and there were frequent attacks of abdominal cramps and diarrhea. On December 20 the patient coughed up a moderate amount of old and fresh blood and the chest showed duliness and moist rales over the left lower lung field. The liver was felt three fingerbreadths below the costal margin and the tip of the spleen was palpable. Sulfadiazine was started and continued to 13 Gm. On December 24 the patient began to complain of dyspnea and rapidly went

#### Comment

It must be remembered in discussing surgery of the sympathetic nervous system for essential hypertension that several types of operation have been performed; we cannot group the end results from these different types of operations into one category. Operations which come closest to a complete denervation of the splanchnic bed should give the best end results

Patients suffering from essential hypertension are entitled to the benefit of a consultation, but the consultation should be held with an open mind. Those of us doing surgery are seeing patients who have been refused the opportunity of having the facts, as they now exist, as to the possible benefit of sympathetic surgery, honestly and clearly presented to them so that they, as intelligent individuals, may make a choice as to the course to be followed; namely, further medical management and later surgical intervention, or early surgical intervention before advanced cardiorenal changes have become manifest. This decision rests with the patient.

The following case will illustrate the difficulty of presenting a clear picture of the problem to the patient.

Case 6.—A woman 44 years of age, married, with no children, was known to have a normal blood pressure in October, 1941. Six weeks later she consulted another physician, for a condition unrelated to the cardiovascular system, who found a blood pressure of 225/120. She was under this physician's care for several months. She then consulted a gynecologist for another complaint, at which time (six months after the onset of the hypertension) he advised her to seek an opinion as to the possibility of a thoracolumbar sympathectomy. Six weeks later I saw this patient, whom I had known twenty years previously. After a complete work-up she was found to have essential hypertension, Group 2, with some cardiac enlargement and a blood pressure of 200/130. The facts were frankly presented to the patient, her husband, and the referring gynecologist, and the patient decided to have the operation. By chance she met a well-known cardiologist a few days before she entered the hospital, and he strongly advised against such a procedure Since his advice was not solicited by the patient, she asked him how many patients he had ever seen operated upon for essential hypertension and what types of operation they had had, to which he could reply only he had seen none. The patient's comment was that perhaps her judgment might be as good as his as to what course she should pursue. Nine months following operation she was examined by Dr. Charles Poindexter, one of New York's well-known cardiologists, who made the following statement.

"Physical examination revealed that the blood

pressure was 132/90. The heart tones were entirely normal, and there is a very minimal evidence of peripheral vascular change.

"On fluoroscopy a very slight amount of enlargement of the left ventricle is seen. Otherwise the

heart seems to be perfectly normal.

"The electrocardiogram is well within normal limits and does not even have a left axis deviation

"I really think this is a most remarkable case that I have seen. The results seem to me just about Of course I no not know what her cardiac findings were before the operation, but certainly at the present time her condition is excellent. It will be very interesting to see what the years to come will bring forth. It is the first time I have developed any enthusiasm for the operation "

#### Conclusion

Patients with essential hypertension should have the facts honestly presented so that they may make their own decision as to whether or not to have the operation.

Thoracolumbar sympathectomy has produced reversible changes in kidney function as demonstrated by blood chemistry findings.

Papilledema resulting in blindness has been

relieved, with return of normal vision.

4. Patients totally disabled over long periods of time, one for four and a half years, have been restored to a normal earning capacity.

5. Cases in Group 4 should not be considered hopeless, as excellent results are frequently obtained by thoracolumbar sympathectomy.

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Canada has 35 women doctors in the armed services .- Science News Letter

Children have more need of models than of critics.—Joubert

the muscles, but no evidence of periarteritis nodosa. This author suggested a possible relationship between trichinosis and periarteritis

The terminal episode is difficult to interpret. The possibilities for consideration are occlusion of the mesenteric vessels, intestinal perforation, and intra-abdominal or retroperitoneal hemorrhage. The intestinal distension appeared to be caused by a paralytic ileus. One must also consider the possibility of uremia, although the blood nonprotein nitrogen on January 23 was reported as normal. Unfortunately, no determination was made during the terminal period. Many of the cases terminate in uremia, of which paralytic ileus may be a feature.

In summary, this patient presented a diverse symptomatology, strongly suggestive of periarteritis nodosa. A muscle biopsy seemed to support this diagnosis. However, the possibility of trichinosis was not definitely ruled out. The weight of evidence favored the diagnosis of periarteritis nodosa.

Dr. CATHERINE R. KELLEY: The outstanding feature of this case on admission, before the blood count was obtained, was an apparent anxiety neurosis. The patient's first episode of asthma followed a severe emotional upset. There were no outstanding physical signs aside from the emotional state.

Dr. Arnold Koffler: It is unique that we have been able, on our Division, to diagnose such a relatively large number of cases of periarteritis nodosa antemortem. I heartily agree with Dr. Appelbaum that the reason is the fact that we have always borne in mind the progressive clinical picture and the widespread involvement of so many different organs and systems.

An unusually similar case of allergy and periarteritis nodosa was reported in a recent issue of the Mayo Clinic Bulletin. Marked eosinophilia was as prominent a finding here as in the case discussed today. But I believe we have overstressed this finding in the discussion today. In fact, I believe that I am right in saying that this finding was entirely lacking in most of the cases discussed at these conferences.

DR. EMANUEL APPELBAUM: It is not to be expected that the diagnosis can be made on first observation. In most instances one must study the evolution of the disease in order to establish

its presence.

Dr. Ofto Steinbrocker: I saw this patient when she came in and saw her later during her hospital course. Strangely enough, her symptoms improved to such an extent before death that the prognosis appeared good. However, the fact that the erythrocyte sedimentation rate was more elevated at that time than it had been

on admission might have suggested that her condition was not as good as it appeared to be clinically. My original diagnosis was trichinosis and I still think that it is a good additional possibility.

DR. HENRY C. FLEMING: What is your opinion regarding the pathogenesis of hypertension in periarteritis nodosa?

DR. EMANUEL APPELBAUM: Most cases of periarteritis nodosa at autopsy show extensive involvement of the renal arterioles, which may account for the hypertension, but sometimes the hypertension appears before there is any clinical or laboratory evidence of renal disease. In these, it is assumed to be the result of diffuse vascular lesions.

DR. ARTHUR L. WASHBURN: Three questions come to my mind: Have you ever seen intestinal obstruction in trichinosis? Do the electrocardiographic changes in trichinosis resemble those of coronary occlusion? Does the eosinophilia rise as high as 66 per cent in either trichiniasis or periarteritis nodosa?

Dr. Emanuel Appelbaum: We have never seen intestinal obstruction in trichinosis. The eosinophilia may vary from 0-90 per cent in trichinosis. It also may be very high in periarteritis nodosa associated with asthma or other allergic manifestations. Seventy per cent is the highest I have observed in periarteritis nodosa. With regards to the other question, any type of electrocardiogram indicative of myocardial damage may be observed in trichinosis.

Dr. Harold J. Livingston: In the two cases reported in the J.A.M.A. by Reimann et al., there were many diagnostic factors in favor of periarteritis nodosa. In the first case the muscle biopsy showed histologic changes of periarteritis nodosa but the specific tests gave a positive precipitin test with trichinella antigen. while the intracutaneous and complement fixation tests were negative. In the other case, the features were very similar and the specific tests gave varied results and only on postmortem were the encysted trichinella larvae found. It. was suggested that the lesions may be on an allergic basis incited by trichina. Rich experimentally produced typical lesions of periarteritis nodosa in the rabbit on an allergic basis.

DR. MAXWELL L. GELFAND: Is hypertension commonly found in trichinosis?

DB. APPELBAUM: No.

Dr. Max Trubek: A high eosinophil count is usually a good prognostic sign in trichinosis. This case, in both the constitutional and family history, demonstrated well the relationship of toxic allergic conditions to vascular disease. I think we will find the lesions distributed throughout all the organs, including the mesenteric

into left ventricular failure and semicoma. Intravenous' digitalization and other emergency measures were effective and the patient was kept on a maintenance dose of digitalis thereafter. By January 12 the cardiac failure and lung signs had cleared completely.

The blood counts showed an increasing anemia and a persistent leukocytosis of 27,000 to 46,000, with eosinophilia varying between 66 and 15 per cent. The urine concentration remained good; the albumin varied between 1 and 4 plus and sediment showed white blood cells, hyaline and granular casts, and occasional red blood cells. The blood nonprotein nitrogen remained normal. The erythrocyte sedimentation rate on January 21 was 55 mm. per hour.

The patient appeared to improve somewhat. in spite of persistent paresthesias and muscle weakness, until January 23, when she began to complain of nausea, vomiting, and epigastric and periumbilical pain radiating to the back. She showed only slight abdominal tenderness. blood amylase taken at this time was 8.9 units. On January 28 the pain became most intense in the right lower quadrant, with tenderness, slight rigidity, abdominal distension, and absence of peristaltic sounds. A Miller-Abbot tube was passed and Wangenstein suction was applied. Colonic irrigation and prostigmine were used, with some relief of the distension, but the temperature gradually rose to 103 F., the patient became rapidly cachectic and irrational, and died on January 31, 1944, the sixty-sixth hospital day.

#### Discussion

Dr. Emanuel Appelbaum: This patient presented an extremely varied symptomatology, which included a history of asthma, pains in the legs, tingling, numbness, and weakness of the hands, progressive anemia and cachexia, abdominal cramps and diarrhea, a prolonged low grade fever, evidence of renal damage, hemoptysis, leukocytosis, eosinophilia, and signs of cardiac failure. The terminal phase of her illness was characterized by serious abdominal manifestations.

It is, of course, well known that periarteritis nodosa is a disease of diverse symptomatology, as would be expected, since the arterial system of any organ or set of organs may be involved. This makes the antemortem diagnosis very difficult: In 1921 Meyer mentioned the combination of chlorotic marasmus, polyneuritis and polymyositis, and gastrointestinal symptoms as being a diagnostic triad. To these manifestations Brinkmann added nephritis. Several years ago I suggested the formulation of a more comprehensive diagnostic pattern by adding to the

Meyer-Brinkmann tetrad a few other common features of this remarkable disease. These included evidence of diffuse vascular involvement, signs of infection such as fever, leukocytosis, and increased sedimentation rate, eosinophilia, and the presence of erythematous, hemorrhagic, or nodular skin lesions. On the basis of this formula we have been able to make a correct intra vitam diagnosis of periarteritis nodosa in several cases. It is also extremely important to perform a skin or muscle biopsy whenever the existence of periarteritis is suspected, although a negative result of this procedure does not rule out the possible presence of this disease. Since many of the features included in the diagnostic pattern were present in this case, a diagnosis of periarteritis nodosa seemed logical.

However, in the differential diagnosis one had to consider the possibility of trichinosis, the sub-acute or chronic form of which may simulate periarteritis nodosa very closely. Prolonged fever, pain in the extremities, pseudoparalysis, leukocytosis, eosinophilia, asthma, and albuminuria may occur in the course of trichinosis. The negative precipitin and complement fixation tests weakened but did not definitely rule out the diagnosis of trichinosis. Unfortunately, the intradermal test was not done. Only one of these three specific tests may be positive and the other two negative. There are also instances of trichinosis in which all of these three laboratory procedures are negative.

In regard to the episode of acute myocardial failure it may be noted that this complication is fairly common in periarteritis nodosa, especially as a terminal event. On the other hand, myocardial damage with circulatory failure is occasionally encountered in trichinosis. I have observed several such instances.

Now, what about the biopsy? Let me read to you the microscopic description of a muscle section: "In the muscle, the fibrous tissue between the muscle bundles is infiltrated with lymphocytes, plasma cells, and eosinophils. The lumina of some of the blood vessels are narrowed because of intimal proliferation. The adventitia or perivascular fibrous tissue is infiltrated with lymphocytes, plasma cells, neutrophils, and eosinophils. Extravasated red blood cells appear between some of the muscle bundles."

These lesions are typical enough for periarteritis nodosa. But similar foci of cellular infiltration are frequently seen in trichinosis. The perivascular and arterial involvement may also be found in trichinosis. Reimann recently reported a case of this kind. The muscle biopsy in Reimann's case was reported as typical for periarteritis nodosa. The necropsy, however, showed the presence of encysted trichinellae in

tures alluded to above. The heart, liver, pancreas, kidneys, and small intestine were the organs most seriously involved. (Fig. 1)

Heart .- Scattered throughout several sections of myocardium examined microscopically were numerous large, irregular areas of fibrosis. Within and about these scars were arteries showing both healed and active lesions. The latter were characterized by degenerative changes in the media, evidenced by the presence of edema, fibrinous exudate, and swelling of the muscle cells. In some vessels a part or the entire circumference had undergone coagulation necrosis, imparting a hyaline-like appearance to the media. Where this change was marked, the intima was raised and pushed into the lumen, giving the latter an eccentric position and reducing it to a narrow slit. In others there was infiltration of the media and adventitia with polymorphonuclear leukocytes, eosinophils, lymphocytes, and plasma cells. The perivascular connective tissue was edematous and infiltrated with large numbers of leukocytes. In a few there was destruction of the entire wall. In others, there was marked proliferation of fibroblasts from the adventitia into the inflammatory zone, accompanied by a reduction in the polymorphonuclear leukocytes and an increase in the lymphocytes and plasma cells. The healed lesions were few in number. These were characterized chiefly by a marked subendothelial connective tissue proliferation with marked narrowing of the lumina. There were no aneurysms nor thrombi noted.

Kidneys.—Microscopic examination of the kidneys revealed the same changes in the vessels alluded to above. Besides these, there were changes noted within many of the glomeruli. In these, the epithelial cells lining both the visceral and parietal layers of Bowman's membrane were

swollen and in a few instances proliferating. The capsular spaces and proximal convoluted tubules contained red blood cells and polymorphonuclear leukocytes. In many instances the capillary tufts were simplified, and within the lumina of a few hyaline thrombi were found. Several small scars were noted. The tubules in these latter areas were atrophic.

Intestine.—Within the muscular coat were numerous blood vessels showing active lesions. The lumina of a few were plugged by thrombi. In many instances, the overlying mucosa was ulcerated, the resulting gap being bridged by fibrin or filled in with necrotic debris. At times the necrosis involved the entire thickness of the intestinal wall. The perivascular connective tissue in a few instances was infiltrated with extravasated blood.

Orary.—The vascular lesions in the ovary differed in that one of the arterioles contained an organizing thrombus.

#### Anatomic Diagnosis

Active and healed periarteritis nodosa of the smaller mesenteric arteries with multiple infarcts of the small intestine and acute focal fibrinous peritonitis.

Active and healed periarteritis nodosa of coronary arteries with myocardial fibrosis.

Active and healed periarteritis nodosa involving the vessels of the liver, spleen, pancreas, adrenals, kidneys, ovaries, fallopian tubes, and uterus.

Acute glomerulonephritis.

Dr. EMANUEL APPLEBAUM: This case of periarteritis nodosa is of particular interest and value because it demonstrates the disease in the various pathologic stages and shows also that these lesions may heal.

#### COLD VACCINE SALES SCORED

The prescription and sale of cold vaccines is an unwarranted commercial assault on the public pocketbook, the *Journal of the American Medical Association* for January 22 declares. The *Journal Save*.

eays:

"Recent communications to the offices of the American Medical Association indicate that the prescription and sale of cold vaccines is again taking place on a large scale. This, in the face of the recognized lack of scientific evidence for the value of these preparations, is indication of irresponsibility on the part of some manufacturers of pharmaceuticals. The scientific evidence against the value of oral cold vaccines is overwhelming; consequently individual physicians and firms who deal in pharmaceuticals and who lend themselves to wholesale uncontrolled distribution of such preparations are perpetrating an unwarranted commercial assault on the public pocketloock."

#### CHINA TO HAVE VIRUS LABORATORY

United China Relief, through the American Bureau for Medical Aid to China, is helping to finance a rickettsia and virus laboratory which shortly will be started in China by the Chinese National Health Administration.

Dr. Chen-Hsiang Huang, who came to this country in 1941 as a fellow of the Rockefeller Institute for Medical Research, is en route to China, under the auspices of the A.B.M.A.C., to direct this work as head of the Department of Experimental Medicine in the National Institute of Health.

At the present time there is no medical school or institution in China equipped to carry on virus research, and the rickettsia and virus laboratory will be the first of its kind in that country.

During the past year Dr Huang has been Instructor in Medicine and Virus Research at the College of Physicians and Surgeons of Columbia University.—Connecticut State M. J.



Fig. 1. Photomicrograph of vascular lesion in pancreatic vessel.

arteries, possibly with small infarctions in the liver and spleen.

#### Presentation of Pathology

DR. ROBERT POPPITI: Gross Findings.—At necropsy, the body was that of a 37-year-old emaciated white woman. There was no free fluid in the peritoneal cavity. The small intestine was markedly distended and focally discolored throughout its entire length. There was no free fluid in either pleural cavity, nor were there any adhesions.

The heart was normal in size. It weighed 240 1 Gm. Aside from a few small areas of fibrosis in the apical portion of the left ventricular wall it presented no unusual changes. The coronary arteries were entirely free of atherosclerotic changes. The right and left lungs weighed 450 and 400 Gm., respectively. Both were congested. The intimal surface of the aorta was remarkably smooth. The liver weighed 1,250 Gm. Its cut surface was deep brown and smooth. There were no infarcts present. The spleen, pancreas, and adrenals showed no noteworthy changes. Both kidneys weighed 240 Gm. Their capsules stripped easily, revealing finely granular reddish-brown surfaces. Their cortices were thinner than usual. The markings were not

distinct. The reproductive organs presented no gross changes. The esophagus and stomach were natural. The entire small intestine was distended. Scattered over its surface throughout the entire length were numerous irregular, port-wine colored patches which were covered by a thin film of fibrin. On section one found that these were represented on the mucosal surface by irregular areas of superficial ulceration which varied from 2 to 10 cm. in length and from 1 to 4 cm. in width. All were covered by a thin pseudomembrane. The lumen of the bowel contained bright red blood. The colon and rectum were natural. Examination of the diaphragm, abdominal musculature, and visceral arteries revealed no changes. Consent for examination of the brain was not given.

#### Microscopic Findings

Microscopic examination revealed that the primary and essential pathologic lesions were present in the smaller arteries. These vascular lesions were found in the lungs, heart, liver, pancreas, spleen, adrenals, kidneys, ovaries, fallopian tubes, uterus, and lymph nodes. The changes noted were consistent with making a diagnosis of periarteritis nodosa. Both active and healed lesions were found in all the struc-

faction with the hospital on the part of the radiologist.

The situation has become accentuated by the entry into the field of hospital administration of the group hospitalization plans, many of which are said to be purchasing medical care from their cooperating hospitals and are thus said to be liable to the charge of unethical practice. The hospitals, on the other hand, contend that under the present pattern of hospital administration, particularly with reference to staff organizational plans, any other arrangements than those now in effect would adversely affect the patient. Since, therefore, the primary objective of both the medical profession and of the hospital is the safeguarding of the patient's welfare, either we should be forced to sacrifice that welfare or we are forced by logical necessity to devise a procedure different from the one now in more common operation. Thus far, the dilemma stands unchallenged or, to speak more exactly, not unchallenged but unresolved. From the hospital's point of view, the problem has been intensified by the recently developed increased shortage of radiologists which has made it necessary that one radiologist, in some localities, serve not one but several institutions from each of which he derives income often to an extent, so it is said, out of all proportion either to the amount of time which the radiologist devotes to any one of the institutions, or to the remuneration derived by other physicians from their hospital practice.

#### The Case for the Physician

It cannot be denied that the functions of the hospital pathologist, the laboratory physician, the physician anesthetist, the physiotherapist, and the radiologist belong essentially to the area of medical practice. As such, these medical specialists are subject to the same ethical requirements as are the internist or the surgeon, the obstetrician or the ophthalmologist. Their work is essentially to be regarded as a professional service to the individual patient; their work should be carried out strictly in the spirit of the personal relationship between physician and patient; there should be interposed in that relationship no third party. The service should not rest upon considerations of financial return but solely, according to the very first principle of ethical practice, upon the need of the patient for medical services. If any of these physicians enter into contractual relationships with an organization or institution, they, like all other physicians, the general practitioner as well as the specialist, must safeguard the ethical character of that contract. These five groups of specialists giving general hospital care must be just as careful and conscientious in their avoidance of feesplitting as the surgeon and the surgical specialist is required to be. All of this and all that is implied in it and all that might be said in amplification is theoretically sound and basically

General Service Physicians Remote from Their Patients.—In practice, however, we find the situation considerably different from the ideally and theoretically correct situation. The pathologist and the laboratory physician and the radiologist and the physician anesthetist and the physiotherapist are often more or less remote from their patients. As a general rule perhaps, or surely in general practice, the patient not only does not see these physicians but probably has never been made actually aware of their assistance or of their essential participation in hospital service. If, on rare occasions, they should find the signature of one of these physicians on a sheet included in the patient's history, the patient would probably find himself completely ignorant of the services rendered by these physicians. There is interposed between the patient and these general service physicians a vast multiplicity of physical things such as the elaborate paraphernalia of the laboratory, the mysterious machinery of the radiographic room, the complex gas machines of the anesthetist, and the museum-like display of the physiotherapy department. A casual observer who does not understand the intricacies of modern medical practice would say that these five general practice physicians are occupied with things rather than with human beings, with machinery and laboratory contraptions rather than with a suffering patient. The concept is hard to convey even to students of medicine that the pathologist or the laboratory worker is concerned even in the least with the patient, for it seems a far cry to interpret interest in a microscopic section of tissue or a test tube full of blood or urine or of mother's milk as interest in the patient, in his or her bed suffering from any one of the thousands of derangements listed in the standard nomenclature of diseases. Similarly, it seems a far cry from the tubercular lung to the radiographic picture and from the arthritic joint to the diathermic lamp.

Responsibility Is the Important Consideration .-It is a far cry but only for the person who does not understand the meaning of medical responsibility. Medical practice is not based necessarily and always and under all circumstances on immediate and firsthand contact with the patient. What is important in determining what is and what is not medical practice is responsibility. There can be no doubt about the nature or the extent of the responsibility of the

# Special Article

# ADMINISTRATIVE AND PROFESSIONAL PROBLEMS OF MEDICAL PRACTICE IN THE HOSPITAL\*

Alphonse M. Schwitalla, S.J., St. Louis



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FATHER ALPHONSE M. SCHWITALLA

THE title of my comments suggests a problem to which the House of Delegates of the American Medical Association and its various committees have devoted a great deal of time and attention. Even after all such discussion, it is evident that a final word has not as yet been spoken on the subject. Such comments as I might here make, needless to say, should be taken as personal views and do not constitute an official attitude of any association or group which I might be thought to represent.

At the outset, it must be recognized that we are here dealing with a controversy. Fortunately, however, the controversy is one in which difference of opinion arises, not from any unwillingness on either side to recognize the rights of the other side, but from a lack of clearness in administrative procedure which makes it most difficult to achieve a procedure which will, first, safeguard what is best for the patient; second, safeguard the interests of the physician; and third, safeguard the interests of the hospital; for it must be understood that those who have taken part in the numerous conferences that have taken place have been actuated

by a sincere desire not of promoting their own self-interests but of achieving a procedure which will really protect the patient. There is room, therefore, for no recriminations by physicians of the hospital or by hospitals of their staff members. The situation can only mean that the proper formula which should form the basis of agreement and compromise has not as yet been found. I should be foolhardy if I promised this audience anything new in an area of hospital and medical interest in which some of the best minds in both fields have attempted to find a solution for a problem of long standing. I can do little more than review in essence, and very briefly, what other students of the problem have already said much more aptly than I can hope to say it.

#### The Problem

The problem is essentially this. In the hospital there are one or more medical practitioners who for one reason or another in the past have not practiced medicine on an individual basis but have practiced their profession as salaried appointees and, hence, as agents of the hospital. By supposition, there can be no doubt about the fact that these physicians are engaged in the practice of medicine. Since, in that practice, their status as employees and, hence, as agents of the hospital, must be recognized, the hospital is thus engaged in the practice of medicine, a situation which contravenes not only the legal prescriptions of many of our states, but, what is even more important, it contravenes and violates a fundamental ethical requirement in the practice of medicine. As all know, these physicians of whom we are here speaking are those who give certain generalized services in the hospital, such as the pathologist, the laboratory physician, the radiologist, sometimes the physictherapist and the anesthetist. Among these, the radiologists, for many reasons, have been confronted by this problem in a peculiarly acute form not only because of the particular nature of their specialty but also because financial relationships are involved which may easily lead, and have de facto often led to the commercial exploitation of the radiologist by the hospital and to allegedly justifiable dissatis-

Read at the One Hundred Second Anniversary Meeting of the State Medical Society of Wisconsin, Milwaukee, September, 1943.

<sup>\*</sup> Reprinted, with permission, from the Wisconsin Medical Journal, November, 1943.—Editor

rangements many of the abuses of which we complain today have arisen.

The case for the physician, that is, for the pathologist and the radiologist and the laboratory physician and the physician anesthetist and the physician and the physician anesthetist and the physiotherapist is a strong one. We cannot but accept the emphatic pronouncements of the House of Delegates of the American Medical Association with reference, for example, to radiology, "Radiology is a department of medicine and the practice of radiology is the practice of medicine." The same principle merits our complete acceptance as applied to the other specialties which we have here so frequently mentioned.

#### The Case for the Hospital

The case for the hospital, I am entirely willing to admit, is far from being equally convincing. It is my frank opinion that the hospitals are today more than eager to modify their policies and practices to conform with the principles so unmistakably declared by the American Medical Association, so consonant with the broad principles of ethical medical practice, and so sound as the basis of administrative procedure. No one who knows the broad facts in the national picture can call into question the statement that evidence is accumulating "of continued encroachment of hospitals into the practice of medicine" which they do by offering "certain medical services on a service basis as a part of hospital care." No one can question the soundness of the resolution of the House of Delegates "that hospital corporations should not be permitted to engage in the practice of medicine through the medium of employed physicians or to enter into contract with any individual group, or agency, whereby the hospital agrees to furnish any medical services." Again, personally, I cannot but subscribe with emphasis to the principle that "all fees for medical services rendered in hospitals should be collected by or on account of the physician rendering such service, and all physicians concerned in the care of a patient should give or send directly to the patient, or other responsible party, a statement showing charges for professional services rendered." The hospitals in which staff relationships are on a safe and sound basis will extend that basis to include all its medical staff members and not merely those who are engaged directly and chiefly with bedside care. Where, therefore, is the difficulty?

Violation of Fundamental Medical Ethics.—Most immediately, it seems to me, and influential in the present situation is the relative universality of what in the light of our present discussion we cannot but regard as violations of fundamental medical ethics. In reviewing the types of radi-

ologic hospital contracts, a recent issue of the Journal of the American Medical Association tells us that "37 per cent of all radiologists are employed on a salary basis" inclusive of the radiologists in government hospitals and in other full time positions; that "9 per cent lease the departments on fixed rental"; that "54 per cent share gross receipts or net receipts with the hospital," but that "of this 54 per cent . . . about half (27 per cent) are under legal relationships which make the radiologist a tenant, and about half (27 per cent) an employee of the hospitals." On the basis of these statistics, the contracts between radiologists and the hospitals are of such a character that no fewer than 64 per cent of the radiologists are agents or employees of the hospital, that is, 37 per cent who are on a salary basis and 27 per cent who are on a shared receipt basis. As long as this situation continues, the problem which confronts the hospitals is obviously that the contracts must be so revised as to make the radiologist an independent and fully responsible medical practitioner. Here is one of the great problems of the hospital.

Independent Statements.—The procedures implied in this revision of contracts is probably not as simple as it may seem. The problem must, nevertheless, be faced. It has been pointed out by hospital administrators that fundamentally important changes will ensue if the patient receives independent statements from the five specialists whose practice we are here evaluating. Patients, to be sure, today who are able to carry the responsibility for their health care are accustomed to receiving statements from consultants. They understand fully and are generally sympathetic with consultation fees. If this matter is to be put on a sound basis, the patient must expect separate statements from the laboratory physician, from the pathologist, the radiologist, the physiotherapist, and the anesthetist. Hospital administrators contend that under such circumstances the curtailment of special services will be inevitable, just at a time when medicine is able to place at the disposal of the patient a greater number of diagnostic and therapeutic laboratory procedures than at any other time in medical history; just at a time when scientific medicine has reached a development which enables the physician to use laboratory findings with the utmost effectiveness in his interpretation of the patient; just at such a time, so hospital administrators have said, we are making it more difficult for the patient to avail himself of the rich results of scientific research by interposing an increased number of financial hazards between the patient and the availability of scientific results. It must be admitted that there is much value in the argument. The

pathologist or the laboratory physician or the anesthetist or the physiotherapist or the radiolo-The lives, the welfare, the safety of patients depend upon the decisions which these men render, and the responsibility for these decisions implies competence, sincerity, a love of truth, an unselfishness just as acute in its respective area as is the responsibility of the internist and the surgeon. There can be no doubt about the validity of the principle enunciated in the resolutions of the House of Delegates and of several reference committees of the House in the American Medical Association when they assert that the practice of the pathologist, of the radiologist, and of the others whom we have so often mentioned in these remarks is essentially the practice of medicine.

The case for the doctor can be strengthened still further. If all our reasoning thus far is accepted, it would follow that the pathologist and the radiologist and the others are entitled to their respective honoraria on the same basis as are other physicians who are engaged in private practice. Here precisely other acute problems make their influence felt. If these general service physicians had from the beginning regarded themselves as consultants in the same way as the gynecologist or the otolaryngologist is a consultant when he is called in to a consultation by the internist who is attempting to make a diagnosis, many a problem in the present-day practice of medicine might have been forestalled. As a matter of fact, however, for one reason or another, all of them no doubt amply warrantable at the time, radiologists and pathologists and others engaged themselves to hospitals and, probably without fully realizing the implications of their position, placed themselves at the disposal of the hospitals on a salary basis, thus becoming agents of the hospitals and exposing the hospitals to the accusations which are today hurled at them, namely, that they are corporations which are practicing medicine. No doubt there was in all of this no intention on the part of the physician to violate fundamental ethical principles; on the other hand, it is more than likely that the development of the relationships between the pathologist and the radiologist, on the one hand, and the hospital, on the other, as they exist today, are explained more or less in the way in which I have indicated. The reasons for such a development are not far to seek.

The necessity of the elaborate equipment essential in radiology, for example, or in the laboratory, the further necessity of having all of this equipment close at hand in the hospital, the continuous and daily use of this equipment, the impracticability of ownership of all of this equip-

ment by the physician should his practice be scattered over more than one institution, these and a hundred related problems explain the present situation.

Relation of the General Service Physicians to the Hospital Staff .- More subtle still is another situation to which just a brief word must be devoted. In many an institution throughout the land, the pathologist or the radiologist, and the same should be said in a measure for the other physicians whom we are considering, do not consider themselves as intimately associated with the staff. I emphasize the fact that this is not a universal condition. It is general, enough, however, to afford an explanation of conditions as they exist in some institutions. The pathologist is often a critic of the staff, as he is bound to be with reference to the staff's medical practice. The radiologist is frequently looked upon as a mere radiologic diagnostician, scarcely, if ever, seeing the patient prior to the patient's entry into the radiologic laboratory and then not for the purpose of a general clinical study but for the specific purpose of a radiologic study. The anesthetist in some institutions rarely, if ever, knows the patient prior to the patient's admission to the operating room. Sometimes he takes no responsibility for the preanesthetic procedures, and unless he is specially interested in particular surgical problems, he is not too concerned with the general clinical condition of the patient What has been said of the pathologist can be said almost in the same terms of the laboratory physician, and the physiotherapist is apt to use his science and skill without having participated in a thorough clinical review of the patient's illness. It is fully recognized that these conditions, if and where they exist, are explicable by a multiplicity of reasons, all of them valid The point I am making here is not a criticism of the situation but rather an explanation of the somewhat aloof position which the physicians whom we are here discussing are likely to occupy in the hospital

Financial Arrangements.—Finally, in discussing the case for the physician, we may glance at the financial arrangements. The radiologist has sometimes found it most convenient to accept a salary rather than to send his own statement to the patients whom he examines or treats. The same might be said of the other medical officers about whom this question arises. Here again it would seem that feasibility, facility in collection, a general desire to save time and energy, rather than any desire to engage in practices that might suggest fee-splitting between the physician and the hospital, have been the determining factors. And yet, it is equally true that from these ar-

reasons why hospitals do not care to relinquish either their ownership of their physical facilities of the radiologic departments or the salary basis for remuneration of their radiologists.

Elimination of Salary Basis of Payment.— To be sure, accounting problems in this area are notoriously difficult. Whenever allocations of general charges are to be made against departments in an organization, controversies are bound to ensue, and the process of reaching agreements among all parties in interest is sometimes painful and long and, at times, entirely disappointing. Is it any wonder that hospitals which have been accustomed to deficits over long periods of years, even though temporarily they are balancing their books in black rather than in red, are fearful about multiplying their problems by facing the issue we are here discussing, even though I must again insist that in my opinion the hospitals should frankly and with complete sincerity face the necessity for a complete reorganization of many of our present-day procedures? The hospitals have insisted that to effect this we need a breaking away from the salary basis of all of these physicians who are rendering general service. They point out that if the radiologist and the other physicians giving such general service desire to place their services on the basis of a personal relationship with the patient, the first step will be the elimination of the salary basis of payment. It seems difficult for hospital administrators to accept a double system of remuneration for the radiologist and for physicians similarly placed, that is, a salary and, in addition, the right to submit statements to individual patients for individual services. The simplest solution of the basic difficulty would seem to be that the radiologist agree that a salary basis for all except those who are serving on full time will be discontinued and that all clinicians who devote part of their time to a particular hospital will submit statements to individual patients, except in those instances in which the hospital is giving entirely free services to a particular patient. For those who are paying part-pay hospital rates, the honorarium of the radiologist will be adjusted. At one of the numerous conferences held on this topic, one of the consultants thought that such a basis would be acceptable to the radiologist if the hospital would agree. Representatives of the hospitals retorted that the hospitals would have little difficulty in adjusting charges to a changed program, but they lear the radiologists would not agree since, without doubt, a statement of fees sent to individual patients by the individual radiologist would tend to reduce the demand for radiologic service, thus imperiling not only the safety of the patient but

also the income of the radiologist himself, not to speak of the reduction in the income to the hospital. Unfortunately, on such a proposal or similar ones, it is difficult to secure unanimity of opinion from the radiologists themselves. The radiologists hope, therefore, that the hospitals may take the initiative in the matter and may desist from appointing radiologists, pathologists, anesthetists, physiotherapists, and laboratory physicians on a salary basis. It has been suggested, furthermore, that when the radiologist cannot collect a fee from the indigent, or the medically indigent, the hospital should pay an adjusted fee on the theory that it is the hospital which is offering free or part-pay care to the indigent and the medically indigent. And so we have suggestions and countersuggestions, all, in the last analysis, reducible to this problem, since there is agreement upon the basic principle should the initiative in the application of the principle come from the radiologist or from the hospital. The hospitals contend that they would be willing to take the initiative if there were unanimity among the radiologists; the radiologists contend that they would take the initiative if they could be made to feel sure that there is unanimity among the hospitals.

#### Group Hospitalization

May I say just a few words more on potential controversies of the point which we are discussing within the Blue Cross Plans? It is a well-known fact that a Blue Cross Plan which merits the approval of the American Hospital Association must have the approval of the local medical society. As a matter of fact, a large number of these plans owe their initiation to the aggressiveness and planning of the local medical society. For this reason, it is assumed that the program of approved Blue Cross Plans is supervised in many instances by representatives of the local medical society and that these representatives share in a measure in the responsibility for the operation of the plan. Yet, we are told, that of the seventy-seven Blue Cross Plans approved by the American Hospital Association. half of them guarantee medical service to their subscribers. The attitude taken by the Blue Cross Plans in general is that in the operation of their respective plans they will not alter the existing admission or administrative policies of their participating hospitals. In those hospitals, therefore, in which radiologic service is included in the per diem rate, the Blue Cross Plans accept such inclusion in announcing the benefits to the subscriber for which they give remuneration to the hospital. In those hospitals, however, in which radiologic service is treated as an extra charge by the hospital, the

hospital is entitled to some remuneration for the use of laboratory equipment, whether it be in the biochemical laboratory, the bacteriologic, the radiologic, or the physiotherapy laboratory. It is entitled to some return on the space occupied by these laboratories, and it is even more entitled to a return for the salaries and, in some cases, for the maintenance of the technical personnel in these various fields. It is difficult to conceive, therefore, that the hospital will relinquish a right to a return from the patient for some of these expenditures. It is hard, therefore, to conceive how the hospital will give up some form of a charge for the laboratory fee either separate from the room rental or included in an overall blanket per diem payment for hospital facilities. Probably this multiplication of statements which has been suggested will have the unquestioned effect of reducing requisitions for laboratory studies and for diagnostic and therapeutic procedures.

Where Does Medical Responsibility End?— But there are other considerations, both theoretical and practical in nature, which, it would seem, can make an early solution of this problem extremely difficult. I refer here to the very great difficulty in knowing always where medical responsibility ends. I wish to insist that I am far from advocating a narrow definition of medical responsibility. I cannot find myself in accord with the point of view of those who would draw too fine a line between medical responsibility and a technologic procedure. Posturing of a patient in the radiologic laboratory is often regarded as the responsibility of the technician. She is taught posturing by elaborate demonstrations and explanations, and yet no one with even unlimited experience knows in how many phases of the posturing process a measure of medical responsibility, and sometimes an extremely great measure, is involved. Similarly, the physiotherapy technician has been entrusted with responsibilities which, to me, are at times appalling. Sometimes even seemingly nonsignificant procedures and massage imply, on closer analysis, a degree of medical responsibility which is far greater than the responsibility implied in the writing of many a prescription, yet too facilely altogether we regard prescription writing as medical practice and massage as the legitimate province of the technologist.

Instances of my meaning need not be multiplied before this audience. Suffice it to say that if we really could supply physicians for all the areas in which a measure of medical responsibility is exercised, many a procedure in medical practice today would have to be greatly modified and the supply of physicians would have to be greatly increased. In this very respect, there

are crucial and, in some instances, critical problems which confront us just in this day when nurses, technicians, social workers, and others are invading the field of medical practice under the enormous pressures of today's needs. What answer the future will hold for this very real and practical difficulty it is today too early to tell.

We need clarification of issues at a thousand points. It seems almost ridiculously undignified that the physician, with his high competence and his professional devotion to the practice of medicine, must defend his rights to sound medical practice against the regiments of those who have been trained none too well in theory and scarcely better in skills in some limited field of care for the sick human being. But such are the times in which we are living.

The Hospital's Financial Problems.-The hospital is concerned also with financial returns. It has been urged by sincere defenders of sound medical practice that the hospitals had exploited their radiologic departments and that the hospitals are using their profits from the conduct of the radiologic departments for covering their losses in the conduct of other departments. This charge is not made as frequently with reference to the laboratory or the physiotherapy department or the department of anesthesia. It seems that the radiologic department must bear the chief brunt of this accusation. There may be behind such thinking some measure of misunderstanding regarding financial administration. It would complicate administration beyond measure if every department of the hospital were or had to be a self-liquidating department. In fact, the modern hospital is a reality and renders such remarkable service to a large extent because the returns from one department can be used to defray the expenses of another. As a matter of fact, some hospital departments taken by themselves and not as a part of the whole organization are not able to earn an independent departmental income. It is abundantly clear, therefore, that if all departments of the hospital were permitted to charge for their services only what is actually expended in each department, the hospital, as we understand it today, would cease to exist. Despite all of this, it must be admitted that radiologic charges in some hospitals are probably unwarranted. To suggest this as a general charge against radiologic departments, however, is also an unwarranted generalization. The radiologist enters into this situation as the exploited victim, the contention being that he is in some instances not adequately paid for his services when these services are measured in terms of departmental income. It is contended that that is one of the

reasons why hospitals do not care to relinquish either their ownership of their physical facilities of the radiologic departments or the salary basis for remuneration of their radiologists.

Elimination of Salary Basis of Payment.— To be sure, accounting problems in this area are notoriously difficult. Whenever allocations of general charges are to be made against departments in an organization, controversies are bound to ensue, and the process of reaching agreements among all parties in interest is sometimes painful and long and, at times, entirely disappointing. Is it any wonder that hospitals which have been accustomed to deficits over long periods of years, even though temporarily they are balancing their books in black rather than in red, are fearful about multiplying their problems by facing the issue we are here discussing, even though I must again insist that in my opinion the hospitals should frankly and with complete sincerity face the necessity for a complete reorganization of many of our present-day . procedures? The hospitals have insisted that to effect this we need a breaking away from the salary basis of all of these physicians who are rendering general service. They point out that il the radiologist and the other physicians giving such general service desire to place their services on the basis of a personal relationship with the patient, the first step will be the elimination of the salary basis of payment. It seems difficult for hospital administrators to accept a double system of remuneration for the radiologist and for physicians similarly placed, that is, a salary and, in addition, the right to submit statements to individual patients for individual services. The simplest solution of the basic difficulty would seem to be that the radiologist agree that a salary basis for all except those who are serving on full time will be discontinued and that all clinicians who devote part of their time to a particular hospital will submit statements to individual patients, except in those instances in which the hospital is giving entirely free services to a particular patient. For those who are paying part-pay hospital rates, the honorarium of the radiologist will be adjusted. At one of the numerous conferences held on this topic, one of the consultants thought that such a basis would be acceptable to the radiologist if the hospital would agree. Representatives of the lospitals retorted that the hospitals would have little difficulty in adjusting charges to a changed program, but they fear the radiologists would not agree since, without doubt, a statement of fees sent to individual patients by the individual radiologist would tend to reduce the demand for radiologic service, thus imperiling not only the safety of the patient but also the income of the radiologist himself, not to speak of the reduction in the income to the hospital. Unfortunately, on such a proposal or similar ones, it is difficult to secure unanimity of opinion from the radiologists themselves. The radiologists hope, therefore, that the hospitals may take the initiative in the matter and may desist from appointing radiologists, pathologists, anesthetists, physiotherapists, and laboratory physicians on a salary basis. It has been suggested, furthermore, that when the radiologist cannot collect a fee from the indigent, or the medically indigent, the hospital should pay an adjusted fee on the theory that it is the hospital which is offering free or part-pay care to the indigent and the medically indigent. And so we have suggestions and countersuggestions, all. in the last analysis, reducible to this problem, since there is agreement upon the basic principle should the initiative in the application of the principle come from the radiologist or from the hospital. The hospitals contend that they would be willing to take the initiative if there were unanimity among the radiologists; the radiologists contend that they would take the initiative if they could be made to feel sure that there is unanimity among the hospitals.

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radiologic service is subject to special remuneration by the Blue Cross Plans. It is said that some of the approved Blue Cross Plans have insisted upon the inclusion of radiologic service even when in the locality or in the particular hospital such inclusion was not part of the general administrative policy. It is contended, therefore, that "group hospitalization comes in and cements a branch of medicine as a part of hospital care and guarantees to subscribers not only bed, food, and nursing care but also the services of the doctor." It is contended that "inclusion of x-ray service in Hospital Service Plans . . . inevitably leads to deterioration of quality in radiologic care. There is overutilization of the radiologist's service with a lick and promise type of radiologic care."

"Subscriber's Contract Should Exclude All Medical Services."—Needless to say, in these few sentences we have attempted to summarize controversial matters upon which there is considerable disagreement not only with reference to points of view but even with reference to facts.

The American Medical Association is said even to this day to stand firmly by the report of its Bureau of Medical Economics made in 1937 in which ten principles of organization and administration were recommended for guidance in the establishment and direction of group hospitalization plans. The fourth principle bears upon the subject of our discussion. It reads, "The subscriber's contract should exclude all medical services-contract provisions should be limited exclusively to hospital facilities." In evaluating the merits of the two sides of the controversy, the case for the physician and the case for the hospital are acutely accentuated both in the form of organization and in the administration of the Blue Cross Plans, since it is through the operation of the Blue Cross Plans that physicians and hospitals come into another intimate touch one with the other. It is probable that the functioning of the Blue Cross Plans introduces no new factor in the controversy except perhaps that the right of the American Hospital Association to approve a Blue Cross Plan which includes a contestable form of medical service rendered under the auspices of a hospital may be questioned. The answer of the Blue Cross Plans to this point is that they will accept whatever procedure the individual participating hospital will adopt under the direction and supervision of the local medical society. The hospitals again counter by insisting that they will follow the arrangements suggested by or insisted upon by the medical profession, especially by the radiologist himself.

And so perhaps the controversy reaches back into the fundamentals of the ethical practice of medicine. It is significant that the conclusion of the minutes of one of the recent conferences held upon this point, in which representatives of the trustees of the American Hospital Association and of the boards of the American, the American Protestant, and the Catholic Hospital Associations participated, reads as follows: "There seems to be unanimous agreement that the physician is supreme in the hospital in all matters pertaining to medical service rendered in hospitals."

#### Conclusion

For me, personally, I feel that I can unqualifiedly state my position briefly as follows:

1. The principle of the exclusive autonomy of the physician in rendering medical service to a patient must remain inviolable.

2. The ethical relationships defined in the principles of ethics of the American Medical Association with reference to consultations are sound and are conceived in the best and in the most lasting interests of the patient.

3. The application of these two fundamental principles to the practice of medicine by the physicians who give a general service is beset with numerous difficulties which should, however, with sufficient good will, competence, and sincerity, be resolvable in a manner conducive to the good of the patient and in conformity with elevated ideals in medical practice.

4. Plans should be studied which will make it possible for the hospitals to work towards the elimination of the salary basis of appointment of the pathologist, the radiologist, the laboratory physician, the physiotherapist, and the physician anesthetist, so that these physicians may be in reality and not merely in name free professional and independently responsible agents and not agents of the institution in which they are carrying on their work.

5. A basis or a number of bases should be devised according to which a fair return on its investment and on its operating expenditures in the conduct of the various medical general service departments should be returned to the institution.

6. If these principles are reduced to a practical program, the controversies with reference to these questions which have centered in the Blue Cross Plans can and will be successfully adjusted provided that the Blue Cross Plans adhere firmly to the principle which they have adopted of guaranteeing to the participating hospitals continuing freedom in the formulation and execution of their administrative policies.

ولا فيترات والتركية الأبهم بمعرا المهيداء والمراج بديرا

### Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.

#### Joint Meeting of Broome and Tioga County Societies

A SINGLE lecture on "Low Back Pain" by Dr. Byron Stookey, professor of clinical neurosurgery at the College of Physicians and Surgeons of Columbia University, was given before a joint

meeting of the Broome County Medical Society and the Troga County Medical Society.

The meeting was held at the Arlington Hotel in Binghamton on March 14, at S:30 P.M.

#### Forceps Delivery

DOSTGRADUATE education in obstetrics has been arranged for the Saranac Lake Medical Society. The lecture is to be given on April 19, at 8:00 r.s., in the John Black Room, Saranac Laboratory, Saranac Lake.

The title is "Forceps Delivery: Indications, Dangers, and Accomplishment," and the speaker

will be Dr. Harvey B. Matthews, clinical professor of obstetrics and gynecology at Long Island College of Medicine.

This instruction is presented as a cooperative endeavor between the Medical Society of the State of New York and the New York State Department of Health.

#### Cancer Teaching Day in Schenectady

A CANCER Teaching Day will be held at Ellis Hospital in Schenectady on April 20, under the auspices of the Medical Society of the County of Schenectady, the Medical Society of the State of New York, and the New York State Department of Health, Division of Cancer Control.

The afternoon meeting will be called to order at 3:00 r.m. at Ellis Hospital by the chairman of the meeting, Dr. Ellis Kellert, director of the Ellis Hospital Laboratory. The first lecture will be "Modern Trends in Cancer Research," by Dr. William H. Woglom, associate professor of cancer research at Columbia University in New York City. "Tumors of the Peripheral Nerves and the Adipose Tissues" is the lecture which will be delivered by Dr. Arthur Purdy Stout, associate professor of surgery at Columbia University and attending surgical pathologist at Presbyterian Hospital, New York City.

The evening meeting will be held at the Mohawk Golf Club. Dr. Charles E. Rourke, president of the Schenectady County Medical Society, will act as chairman.

Dr. Fordyce B. St. John, professor of clinical surgery at the College of Physicians and Surgeons, Columbia University, and attending surgeon at Presbyterian Hospital, New York City, will speak first, on "Carcinoma of the Stomach—Results of Studies in a Surgical Clinic. The Responsibility of the General Practitioner and the Surgeon." Dr. Hayes E. Martin, assistant professor of clinical surgery at Cornell University Medical College and attending surgeon at Memorial Hospital, New York City, will then deliver a lecture entitled "Tumors of the Major Salivary Glands."

Dinner will be served at the Mohawk Golf Club

at 6:30 p.m.

#### Thursday Evening Series for Madison County

A SERIES of lectures, held on Thursday evenings at 8:00 r.m., has been started in Oneida. They are being given before the Madison County Medical Society at the Hotel Openida in Openida.

"The Diagnosis and Treatment of Pelvic Pain" was the subject of a lecture given on April 6 by Dr. Edward A. Bullard, attending surgeon at Woman's

Hospital, New York City. On April 13, Dr. Albert D. Kaiser, associate professor of pediatrics at the University of Rochester School of Medicine and Dentistry, discussed the topic "Rheumatic Fever—Rheumatic Heart Disease in Children".

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The lecture on April 20 will be "Management of the Failing Heart," by Dr. Harry Gold, assistant professor of pharmacology at Cornell University Medical College in New York City. On April 27 Dr. Harold D. Harvey, associate in surgery at the College of Physicians and Surgeons, Columbia University will speak on the subject "Problems of Gastric Cancer."

The lectures on penicillin therapy, rheumatic fever—rheumatic heart disease in children, and cancer are provided by the Medical Society of the State of New York in cooperation with the New York State Department of Health.

#### Series on General Medicine for Greene County

HE medical staff of Memorial Hospital of Greene County is receiving postgraduate instruction in general medicine on Thursday evenings at 9:00 P.M. at the Memorial Hospital in Catskill. On March 30 Dr. Laird S. Van Dyck, associate in dermatology and syphilology at New York Post-Graduate Medical School, Columbia University, opened the series with "The Diagnosis and Treatment of Common Skin Diseases (Exclusive of Eczema, Drug Eruptions, Cancer, and Syphilis). The lecture on April 27 will be "What Do We Know About Vitamins?" and the speaker will be Dr. David K. Miller, professor of medicine in the University of Buffalo School of Medicine.

"The Diagnosis and Treatment of Head Injuries" is the topic for May 25, and Dr. Wallace B. Hamby, professor of neurologic surgery in the University of Buffalo School of Medicine, will speak. In June 29 the lecture, "Circulatory Disturbances in the Extremities," will be delivered by Dr. A. Wilbur Duryce, associate clinical professor of medicine at the College of Physicians and Surgeons of Columbia University.

The lectures "What Do We Know About Vita-mins?" and "The Diagnosis and Treatment of Head Injuries" are provided jointly by the Medical Society of the State of New York and the New York State

Department of Health.

#### Cortland County Hears Two Speakers on General Medicine

TWO sessions on general medicine have been arranged for the Cortland County Medical Society, to be held on Friday evenings at 8:30 p.m. at the Cortland County Hospital in Cortland. On April 21 Dr. Harold J. Stewart, associate professor of medicine at Cornell University Medical College,

will speak on "The Use of the Electrocardiogram in Heart Disease."

On May 19 "Asthma" will be the topic discussed by Dr. Stearns S. Bullen, assistant professor of medicine at the University of Rochester School of Medicine and Dentistry.

#### Malaria and the Dysenteries

LECTURE on tropical medicine was presented A LECTURE on tropical medical Medical Society on April 13. The meeting was held at 1:00 P.M. at the Baron Steuben Hotel in Corning.

"Malaria and the Dysenteries" was the title of the lecture, which was presented by Dr. Stockton Kimball, associate in medicine and pharmacology at the University of Buffalo School of Medicine.

This instruction was presented as a joint en-deavor between the Medical Society of the State of New York and the New York State Department of Health.

#### EXHIBITION OF "OCCUPATIONAL THERAPY IN WAR AND PEACE" IN PHILADELPHIA

The country's most representative exhibition of "Occupational Therapy in War and Peace" will be staged at the Philadelphia Art Alliance from April 17 to May 30, it is announced by John F. Lewis,

Jr., president.
Mrs. Franklin D. Roosevelt will officially inaugurate the exhibition, which was formed in cooperation with the hospitals of the U.S. Armed Forces, on Monday evening, April 17. Dr. Edward A. Strecher, Consultant to the Surgeon General of the U.S. Navy, and consultant to the Secretary of War, U.S. Army, and Army Air Forces, will also participate in the evening's ceremonies, which will be broadcast by a national radio network.

This exhibition will be the first large exhibition of occupational therapy, or "Cure Through Work," ever staged in Philadelphia, and it will be the first showing of the therapeutic work among the disabled members of the Army, Navy, and Air Force ever combined anywhere.

Every gallery and showcase in the Art Alliance

will be taken over for the six weeks by this show. Regular demonstrations by actual occupational therapy patients will be given for the benefit of the visiting public in the various rooms of the Art Alliance

In addition, several afternoon and evening events during April and May will treat the many facets

of the subject. One gallery will house a model occupational therapy shop such as might be found in a civilian hospital, with finished and unfinished handicraft Visitors will be permitted to try their hand on view.

at the weaving looms, block printing, sketching, cord knotting, rug hooking, and wood carving.

Incapacitated patients will demonstrate in this

shop every Saturday afternoon and at that time the director, Miss Wellman, will be on hand to answer questions.

In another gallery of the Art Alliance, which will be set up as a functional shop, service patients from the Valley Forge General Hospital and the U.S. Naval Hospital will demonstrate the crafts which introduce exercise. These demonstrations will be held on Tuesday afternoons.

The Art Alliance's regular Decorator's Gallery will be converted into a modern living room whose entire furniture and furnishings have been constructed by occupational therapy patients in Army, Navy, and civilian institutions. These furnishings will include curtains, upholstery, carved chairs, game tables, a modern chest table, rugs, bookends, ashtrays, lamps, and wall paintings.

Other exhibitions will feature occupational therapy working materials, finished products, large photographs of patients at work and of their prog-

ress, and civilian-made articles for a sale.

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During the six weeks, all of the Art Alliance events will center about occupational therapy. These will take in Army and Navy technical discussions, talks on "Design in Salvage," "Music Therapy," "Creative Stitchery," "Group Occupational Therapy in Group Psychotherapy," "Occupational Therapy in the Pacific Area," Rythmic Exercises for Amputees," and three films from the British Information Service. British Information Service.

#### Medical News

#### A.M.A. Public Relations Council Opens Washington Office

It will be good news to our membership that a Washington Office has been established by the Council on Medical Service and Public Relations of the A.M.A. under the chairmanship of Dr. Louis H. Bauer. The office has been opened in the Columbia Block of the Doctors' Hospital at 1835 Eye Street, N.W., Washington, D.C., Suite 900. A secretary

has been engaged and two telephones are available.

Under an arrangement with the Medical Society of the State of New York, Dr. Joseph Lawrence, Executive Officer of the Society, is acting for the time being in the capacity of consultant and is spending about half of his time in Washington. His long experience as director of the Albany office of the New York State Society should assure the success of the Washington office of the A.M.A. if the proper and necessary facilities are made available. The office is already busy establishing contact with the legislative and public relations committees of the various States of the Union. Dr. G. Lombard Kelly is the permanent secretary. He will spend part of his time in Washington and part in Chicago.

#### New Medical Student Class Cut 50 Per Cent by Army

AS A RESULT of new regulations by the War Department, medical and dental schools throughout the country will suffer a 50 per cent reduction in the Army quota of students scheduled to enter next year. . . . Instead of assigning 5,800 medical and dental students, as originally planned, the Army will admit only 2,800 for the term beginning in January.

Specifically, the quota for medical schools has been cut 55 to 28 per cent and that for dental institutions 35 to 18 per cent. These proportions are expected to be further reduced later. No quota has been established for 1946, Col. Francis M. Fitts, chief of the medical section, Army Specialized Training Program, disclosed. The number of Army men assigned. signed to medical schools at that time will depend

on existing needs.

A serious shortage of doctors in the future, together with a substantial reduction in the number of medical and dental students during the next few Years, will result from the War Department's action, warned Dr. Willard C. Rappleye, dean of Columbia University's medical school and chairman of the executive council, Association of American Medical Colleges.

Despite the urgent need for doctors now and in the postwar period, the decreased assignments by the Army will mean that the medical schools will face a loss of 30 per cent or more in student enrollment, Dr. Rappleye predicted. He pointed out that under the pressure of the manpower shortage it may prove difficult to get a sufficient supply of civilian students.

difficult to get a sufficient supply of civinan students. "The opinion now is that we will not have enough students to fill our classes after this year," Dr. Rappleye said. "This will mean fewer potential doctors. The only group to which we would have any access would be those under 18 years of age."

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He foresaw a serious shortage three years from now, with about one-third fewer medical graduates than had been scheduled under the previous arrangement. In some States, Dr. Rappleye declared, it is difficult to get deferments for the medical students. That will complicate the situation.

In a memorandum to the medical school deans of

the country, Dr. Rappleye notified the administrators that the Army's decision will increase the percentage of civilian students from 20 per cent to 47 per cent unless the Navy increases its quota. The long-term need of medical officers for the Navy will continue and probably increase and that for the Army will diminish, in the light of present calcula-

tions, the memorandum suggested.

Because of the fewer students to be admitted to medical schools, the Association of American Medical Colleges is considering the advisability of returning to its former practice of operating on a twelvemonth rather than a nine-month basis. At present, first-year classes are admitted every nine months. That means four classes will be graduated every three years, thus adding to the number of available doctors. The regular medical program has been accelerated from four to three years. The plan to admit first-year classes every nine months will produce 5,000 more medical officers and physicians than normal in the period 1942-1945.

"Now that the Army has decided greatly to reduce its medical trainees beginning with the next entering classes and has indicated that its more distant future needs for medical officers will not be urgent, there appears to be no necessity for admit-ting first-year classes every nine months," the Rap-pleye memorandum declared. "The return of admissions once a year would permit maintenance of standards of medical education now seriously ham-pered by the reduction of instructional staffs as reported by the Association recently. Furthermore, it is probable that the supply of satisfactorily trained civilian premedical students in the future will be insufficient to fill the medical schools every nine

At the same time, the question of returning the internship to twelve months instead of nine was

raised by Dr. Rappleye.

A special meeting of the executive council of the medical association will be held (April 1) in Chicago to consider the new developments and make recom-mendations to the colleges. The question of whether the entrance requirements for civilian students should be raised from two years' college training will be considered. Before the war 98 per cent of the

students had three years' college training.

The reduction in the Army Specialized Training Program has made necessary the modifications in the medical program, Colonel Fitts explained. Only sufficient premedical and predental trainees were "salvaged" to insure filling one-half of the medical and dental vacancies for 1944–1945, he said.

Colonel Fitts revealed that he and Dr. Rappleye had a "long conference" with Selective Service officials concerning the question of occupational deferment for civilian students. He said that "it is hoped by everyone concerned" that a sufficient number of deferments would be made by the local

boards.

"It is absolutely necessary that there be enough men going into medicine," Colonel Fitts maintained.
"The country must take the necessary steps to insure an adequate supply of medical men for 1945 and 1946. Otherwise the number of doctors will be materially decreased at a time when doctors will be necessary."

In his memorandum to the colleges Dr. Rappleye declared that Selective Service headquarters is confident that the civilian students, medical and pre-medical, can be deferred "in order to insure a supply of physicians for the demands of civilian practice, industry, the public health services, and other nonmilitary activities." Special provisions for the United States Veterans Administration are now under consideration.-Reprinted with permission from The New York Times, March 30, 1944

#### Early Diagnosis Campaign of Tuberculosis and Health Association

URING the month of April the New York Tuberculosis and Health Association is conducting an Early Diagnosis Campaign through radio

programs, as well as through other media.

On April 20 at 1:15 P.M. Dr. George D. Cannon, assisting visiting physician at Harlem Hospital, will speak over WNYC on "Present-Day Methods of Treating Tuberculosis." On April 21 at 11:45 A.M. WNYC will feature a talk, "Work Prospects for the Tuberculous," by Miss Ann Lehman, State Supervisor of Selective Placement, U.S. Employment Service of the War Manpower Commission. "Hospital Care of the Tuberculous." by Dr. Williams ("Hospital Care of the Tuberculous") by Dr. Williams ("Hospital Care of the

"Hospital Care of the Tuberculous," by Dr. William G. Childress, physician in charge, Division of Tuberculosis, at Grasslands Hospital, will be broadcast over WMCA at 1:15 p.m. on April 22. On April 24 at 11:45 a.m., WNYC will broadcast "Tuberculosis in Industry." The speaker will be Mr. Bernard S. Coleman, secretary of the Tuberculosis Committee, New York Tuberculosis and Health Association.

Miss Gladys M. Park, R.N., secretary of the Personal Information Service of the New York Tuberculosis and Health Association, will give a talk entitled "Five Thousand Problems" at 1:15 P.M. on April 27, over WNYC. On the same station, April 28 at 11:45 A.M., Dr. Louis R. Davidson, director of surgery at Sea View Hospital, will speak on "Sur-

gery in Pulmonary Tuberculosis."
"Peace Terms with Tuberculosis" will be the topic discussed by Dr. H. E. Kleinschmidt, medical director for the North Atlantic Area of the American Red Cross; the program will be heard at 1.15 per cond-rate of the formal at 1.15 per cond-rate formal program will be heard at 1.15 per cond-rate formal program will be heard at 1.15 per cond-rate formal program will be heard at 1.15 per cond-rate formal program will be heard at 1.15 per cond-rate formal program will be heard at 1.15 per cond-rate formal program will be heard at 1.15 per cond-rate formal program will be heard at 1.15 per cond-rate formal program will be the cond-rate formal program will be cond-rate formal pro be heard at 1:15 P.M. on April 29, on station

WMCA.

Spot announcements will be heard on all stations

throughout the campaign.

the radio program of Tuberculosis and Health Association is presented in cooperation with the Medical Information Bureau of the New York Academy of Medi-

#### War Conference on Industrial Medicine, Hygiene, and Nursing

THE second "War Conference" of industrial phy-L sicians, industrial hygienists, and industrial nurses will be held in St. Louis, Missouri, May 8-14, 1944, at the Hotel Jefferson. The participating organizations are (1) American Association of Industrial Physicians and Surgeons, (2) American Industrial Hygiene Association, (3) National Con-ference of Governmental Industrial Hygienists, and (4) American Association of Industrial Nurses; and theirs will be a week-long program of joint and separate meetings.

The medical subjects to be presented include welding, in relation to clinical aspects and control of hazards; noise—medical phases and means of prevention; better health in small plants; the industrial physician's opportunity to advance medical knowledge; maladjustment and job environment; women in industry; and panel discussions on "Who Can Work?" and other timely questions. Two clinics, one surgical, at Barnes Hospital, and the other medical, at Desloge Hospital, will be featured among the morning sessions.

The industrial hygienists will examine the health hazards presented by the new synthetic rubber industry; radium; solvents; the toxicology of TNT; the possibilities of an excessive silica dust hazard from the extensive quartz crystal industry which has

recently sprung up in many areas of the country; technics of air sampling in specific reference to the collection of cutting oil mists and of lead fumes, the latter encountered in soldering operations where the hazard is increasing with lack of adequate tin; and hazards of exposure to cadmium, which is known to be more poisonous than lead, and has begun to

cause a number of cases of poisoning. The industrial nurses will consider postwar planning for nurses and medical services in industry; nursing ethics in industrial work; problems in industrial health and its promotion; the young nurse in the industrial environment, the industrial nurse's part in the rehabilitation of psychiatric problems; wartime industrial health; and industrial nursing

and leadership.

This "War Conference" will present an unequalled opportunity for everyone interested to any degree in industrial health problems—especially those of present wartime exigencies—to hear them discussed by the variance of this by the recognized experts in all departments of this important and growing field.

The Hotel Jefferson offers accommodations, but reservations are coming in very fast. Write to John Reinhardt, Chairman, "War Conference" Housing Bureau, Syndicate Trust Building, St. Louis, Missouri.

#### New York Series of Wartime Graduate Medical Meetings

THE 1944 series of wartime graduate medical meetings, sponsored by the American College of Surgeons, started in March. The remaining processes of the later April and May in the New York in a military in following times and places: tine; and April 27, "Neuropsychiatric Problems in the Army," by Col. William C. Porter, at Camp Shanks, Orangeburg,

April 21, "General Surgical Approach to the Abdomen," Dr. John F. Erdmann; April 28 and May 5, "Disorders of the Low Back," by Dr. Arthur Krida; and May 12 and 19, "Neuropsychiatric Problems in the Army," by Col. Douglas T. Thom, at the Induction Center, Grand Central Palace, New York City. May 9, "Cardiac Pain," by Dr. John J. H. Keat-

ing, at Halloran General Hospital, Staten Island.

#### Father Schwitalla to Speak May 4

GENERAL Service Aspects of Medical Practice in the Hospitals" is the title of an address to be given by The Reverend Alphonse M. Schwitalla, S.J., at a meeting of the Joint Council of Pathologists, Radiologists, Anesthesiologists, and Physical Therapy Physicians on May 4. The address will be delivered at a dinner at the Hotel Commodore in New York City at 7:00 P.M.

This meeting, which is an open one, will replace the usual dinner of the pathologists held during the Annual Meeting of the State Medical Society.

Father Schwitalla is dean of St. Louis University College of Medicine.

He has received widespread appreciation for his lucid analysis of the problems confronting hospitals and the physicians who practice in them.

An article by him entitled "Administrative and Professional Problems of Medical Practice in the Hospitals," reprinted by permission of the Wisconsin Medical Journal, appears on page 894 of this issue of the JOURNAL.

#### A.M.A. Plans Better Distribution of Medical Services

DR. MORRIS FISHBEIN, editor of the Journal of the American Medical Association made the announcement that a committee of the American Medical Association is working on plans for a "better distribution" of medical services, which will be presented to the A.M.A. convention in June.

He spoke before a meeting of doctors and laymen in allied fields, held in New York City on March 8 under the auspices of the National Physicians' Committee for the Extension of Medical Service. His audience included doctors, drug manufacturers, insurance and group health insurance company representatives. He decried any plan for widespread medical service which called for federal control or which had its origin in nonmedical sources.

He said that a new Council on Medical Service of the A.M.A. has been charged with considering the myriad plans for establishing a "better distribution of medical service for more people." In addition, he said that the house of delegates of the A.M.A. will give consideration to technics that promise more medical service to more and more people.

#### Conference on Convalescence and Rehabilitation

THE second national Conference on Convalescence and Rehabilitation will be held on April 25 and 26 at the New York Academy of Medicine, under the auspices of the Committee on Public Health Relations of the Academy and with the financial support of the Josiah Macy, Jr., Foundation. Ranking medical officers of the Army, Navy, Army Air Forces, U.S. Public Health Service, and the Veterans Administration will present the projects in this field

which have been developed in their respective serv-

In addition, discussion will be focused on such fundamental topics as nutrition, motivation, re-training, research, and the role of home, hospital, and industry. Admission will be by invitation. Dr. Oswald R. Jones is the chairman of the committee on arrangements and Dr. E. H. L. Corwin. 2 East 103rd Street, the executive secretary.

#### Physicians' Art Association to Hold Exhibit

The American Physicians' Art Association will have its seventh annual exhibit at the A.M.A. convention, Stevens Hotel, Chicago, June 12-16, 1944.

Through the courtesy of Mead Johnson & Co., Evansville, Indiana, there will be no fees for hanging and no express charges either way. The type of art to be exhibited includes personal work of the following types of medium: oil portraits, oil still life, landscapes, sculpture, water color, pastels, etchings, photography, wood carving, leather tooling, ceramics, and tapestries (needle work).

Exhibitors should send now for entry blanks to Dr. Francis H. Redewill, Secretary, A.P.A.A., Flood Building, San Francisco; one entry blank should be used for each medium in which it is desired to exhibit.

#### Fellowship in Industrial Medicine at the University of Pittsburgh

The School of Medicine of the University of Pittsburch announces that the James S. Kemper Foundation has granted \$2,500 to the Department of Industrial Hygiene for the purpose of establishing a fellowship in industrial medicine. The purpose of the fellowship is to make available to a well-qualified

physician the opportunity to pursue graduate work in preparation for a career in the field of industrial medicine. Details of the fellowship will be made available to interested candidates on communication with the Dean of the School of Medicine, University of Pittsburgh.

#### County News

#### Albany County

Dr. Henry W. Cave, attending surgeon and chief of the first surgical division in Roosevelt Hospital, New York City, was the principal speaker at the meeting of the county society held in Albany on March 22.

Dr. Cave is well known in the medical profession for his practice and writings on ulcerative colitis. which was the subject of his lecture. Discussion of his paper was opened by Dr. C. B. Esselstyn, Hudson, and Dr. W. M. Thomson and Dr. A. M. Yunich. Albany,

#### Broome County

A regular meeting of the Broome and Tioga County medical societies was held in the Arlington Hotel in Binghamton on March 14, at which time the members of the two organizations were the guests of the Endicott Johnson Medical Department. Dinner was served at 7:00 r.m. The scientific program was an address by Dr. Byron Stookey of the New York Neurological Institute of New York City.

#### Chautaugua County

At the scientific session of the Chautaugua County Medical Society, following dinner at 1:00 P.M. on March 16 at White Inn, Fredonia, Dr. David K. Miller, professor of medicine at University of Buffalo, gave a talk on penicillin, based on its use in several cases in Buffalo hospitals. Dr. O. T. Barber, of Fredonia, president of the society, presided.\*

The Jamestown Medical Society held its regular monthly dinner meeting on February 24 in the Hotel Jamestown. Dr. W. G. Hayward presented a paper on "Abdominal Symptoms of Urological Disease," which aroused a lively discussion ably led by Dr. Milton J. Johnson,\*

#### Columbia County

Dr. Werner Muhlfelder, of Chatham, who has enlisted in service and expects to be called in the near future, has made arrangements to have Dr. Zoltan Hervey, of Boston, take over his practice in Chat-

Dr. Hervey was born in Czechoslovakia in 1913. He was graduated from the University of Vienna in 1938. He received training in various hospitals in Vienna and Hungary from 1936 through 1940, and in March, 1940, came to this country.

He received one year of rotating internship at the Chelsea Memorial Hospital, Chelsea, Massa-chusetts, and was resident physician for two and one-half years at the Long Island Hospital, Boston, Massachusetts.

Mrs. Hervey is a registered laboratory technician at the Massachusetts General Hospital, Boston.\*

#### **Dutchess County**

A regular meeting of the county society was held in the Golf House of the Hudson River State Hospital, Poughkeepsie, Wednesday, March 8, at 8:30

The scientific program featured "The Devine Colostomy as a Preliminary to Resection of the Sig-moid and Rectum," by Dr. Chas. Gordon Heyd, past-president of the American Medical Association, chief surgeon of Post-Graduate Hospital of New

\* Asterisk indicates that item is from a local newspaper.

#### bia School of Medicine, New York City. Erie County

Recent activities of county medical organizations included a stated meeting of the county society, held on March 28 at 9:00 P.M. in the Hotel Statler in Buffalo, a meeting of the Buffalo Academy of Medicine on March 22, and meeting of the Obstetrical Council on March 30.

York City, and clinical professor of surgery, Colum-

At the Academy meeting Dr. Lloyd F. Craver, of New York City, spoke on "The Significance of Enlarged Lymph Nodes," with discussion opened by Drs. Earl Osborne, Samuel Sanes, and Louis Kress.

#### Fulton County

Dr. T. Wood Clarke, chief attending allergist and pediatrician in St. Elizabeth's Hospital, Utica, was guest speaker at a meeting of the Fulton County Medical Society on February 17. His topic was "Allergy." Following the business session, refreshments were served.\*

#### Jefferson County

The regular monthly meeting of the county society was held at the Black River Valley Club on March 9. Following dinner at 6:30 P.M., Dr. Foster Kennedy, professor of clinical medicine at Cornell University Medical College in New York City, spoke on "War Neuroses," the lecture having been arranged by the Council Committee on Public Health and Education of the Medical Society of the Health and Education of the Medical Society of the State of New York.

#### Kings County

Two addresses comprised the scientific program at the stated meeting of the county society and the Academy of Medicine of Brooklyn held on March 21

Dr. L. Emmett Holt, Jr., associate pediatrician and associate professor of pediatries at Johns Hopkins Hospital, Baltimore, spoke on "The Diagnosis of E" "Principles of Cinetitle of the address by plas<sup>,</sup> Dr. surgeon at Brooklyn Jewish Hospital.

. --- moneorad her the Com-The obstetric  $\epsilon$ mittee on Matern "av. Adof each month, mission is by card only. Members of the county society may present their membership eards and nonmembers may obtain cards from the registrar.

Alumni Day for graduates of the Long Island College of Medicine has been planned for Saturday, April 29, 1944.

The morning session will be conducted at the College. The evening program at the Columbus Club, Brooklyn, New York, will start at 7:00 P.M. and will consist of a dinner followed by an address and a presentation of the latest official war pictures.

#### Madison County

On the occasion of the eighty-first birthday of Dr. Otto Pfaff, the members of the Madison County Medical Society and the Woman's Auxiliary gave a dinner in honor of Dr. and Mrs. Pfaff at the Hotel

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Oneida, Oneida, on Tuesday evening, March 28, at 6:30 o'clock.

for fifty-six years,
in Oneida.

Dr. Joseph S. Lawrence, Executive Officer of the Medical Society of the State of New York, was present at this meeting and spoke on "Socialized Medicine and the Wagner-Murray-Dingell Bill."

#### Nassau County

The March meeting of the county society was held in Mercy Hospital Auditorium in Rockville Centre on March 28, under the auspices of the Nassau

County Cancer Committee.

Dr. Elise L'Esperance, founder and director of the Strang Prevention Clinic, Memorial Hospital, New York City, spoke on "Cancer Prevention Clinics." The second speaker was Ethel L. Goodwin, nurse consultant, Nassau County Cancer Committee, whose topic was "The Delay in Making a Diagnosis in Cancer and the Cost to Nassau County of Caring for the Terminal Cancer Patient."

#### New York County

A program on "Plastic and Reconstructive Surger," was presented at the monthly meeting of the county society held on March 27 at the New York

Academy of Medicine.

The four speakers and their topics were: "An Evaluation of Tubed Pedicle Flaps for Burn Scar Contractures of the Chin, Cheeks, and Neck," by Dr. Gustave Aufricht; "Film-Cemented Skin Grafts," by Dr. Jerome P. Webster; "The Correction of Scar Tissue Contraction of the Lids and the Cul-de-Sacs," by Dr. Edmund B. Spaeth (by invitation); and "Plastic Surgery of War Wounds," by Lt. Cel. James Barrett Brown (by invitation).

Marjorie Fish, director of occupational therapy at Columbia University, has been appointed national educational field director of the American Occupational Therapy Association. While she is on leave of abence Miss Marguerite Abbott will direct the work of Columbia's occupational therapy department.

In her new post Miss Fish will work in association with the Surgeon General's Office in appointing occupational therapists to help disabled service men. She also will help to organize Government-subsidized occupational therapy courses and undertake student recruiting and personnel procurement.

Dr. John Frederick Erdmann, who has performed more than 20,000 operations since he began practice in New York in 1887, observed his eightieth birthday on March 27. Several celebrations by hospitals and other organizations marked the occasion, Dr. Erdmann having started the day by performing an operation at 8:30 A.M.

The appointment of Dr. James A. Shannon to be professor of pharmacology and chairman of the department of pharmacology in the New York University College of Medicine upon the retirement next September of Dr. George B. Wallace has been an-

nounced by Dr. Donal Sheehan, acting dean of the

Dr. Shannon, who has been an associate professor of medicine at New York University since 1942, was educated at Holy Cross College, where he obtained his A.B. degree in 1925. He received his M.D. degree from the New York University College of Medicine in 1929 and his Ph.D. from the same institution in 1935.

After graduation he interned at Bellevue Hospital. In 1936 he carried on postgraduate work in Sweden and Cambridge, England, on the function of the kidney. He was appointed to the visiting staff of the Third Medical Division of Bellevue Hospital and in 1941 was made Research Director of the Third Division of the Goldwater Memorial Hospital.

He has published extensively in the field of renal physiology and at present is devoting all his time to the development of more effective means for the suppression and treatment of malaria under the auspices of the Office of Scientific Research and Development.

He is a member of the American Physiological Society, the American Society for Clinical Investigation, and is on the editorial committee for the Proceedings of the Society for Experimental Biology and

Medicine.

The New York Council of Surgeons is offering a free ten-week refresher course for physicians. The sessions, which began on April 4, are held on Tuesdays from 11:00 a.m. to 12:00 noon at Parkchester General Hospital, 1425 Zerega Avenue, Bronx 61, New York.

At a recent meeting of the Russian Medical Society the following officers were elected for 1944-1945: president, Lazar S. Rosenthal; vice-president, Raphael G. Stoliarsky; corresponding secretary, Benjamin O. Alpern; recording secretary, Sergei S. Krasnitski; treasurer, Gagik S. Agadjanian. The following physicians were elected members of the Executive Committee: G. Altschuller, L. Brown, I. Glassman, A. Tolstoouhov.

The scientific meetings of the Society are held every fourth Tuesday of the month at Squibb Hall,

745 Fifth Avenue.

A special bulletin to the JOURNAL from the Headquarters of the European Theater of Operations, U.S. Army, reveals that Capt. Charles H. Fliegelman, of 127 West 79th Street, New York, found one familiar feature while attending a school opened recently at a large United States Army station hospital in England.

Capt. Fliegelman discovered that he was again under the tutelage of a former instructor, Col. Joseph Haas, Medical Corps, who this time was commanding officer of the hospital. Capt. Fliegelman formerly had been assistant to Col. Haas as chief of urology and related surgery for several years on New York hospital staffs.

Capt. Fliegelman, a native of New Hampshire but resident of New York City for the last twenty years, was graduated from the College of the City of New York with a Bachelor of Science degree in 1925. He received his medical degree at the Long Island College Hospital, Brooklyn, and interned two years at Morrisania City Hospital, New York City. He has continued as a member of the staff of that hospital and of the Jewish Memorial Hospital, New York City.

As its twentieth annual benefit production of Gilbert and Sullivan operettas, the Blue Hill Troupe -one of New York's best-known companies of amateur Savoyards—will present performances of "H. M. S. Pinafore" and "Trial by Jury" on the evenings of April 20, 21, and 22, as well as a children's matinee on April 22, at the Heckscher Theater. In accordance with its long-established tradition the troupe will donate to charity all proceeds above production costs, the beneficiary this year being the New York City Cancer Committee.\*

#### Oneida County

Maj. Howard P. Lewis, chief of medical service in Rhoads General Hospital, spoke on "Practical Objectives in the Diagnosis of Valvular Heart Disease" at a meeting of the Utica Academy of Medicine on February 17 in Utica.

Dr. Walter F. Duggan, Utica, also was a speaker.

His topic was the treatment of glaucoma. Discussions followed each address. Dr. Robert C. Hall pre-

Capt. Gerald F. Jones, who was a practicing physician in Utica for ten years until he enlisted in the Army Medical Corps in 1942, gave a talk on his experiences as "A Battalion Surgeon in India" to members of the Utica Torch Club on February 21.

He was on duty nine months in India. Last November he returned to Utica on assignment to the staff of Rhoads General Hospital.\*

Dr. G. E. Haggart, orthopaedic surgeon of the Lahey Clinic, Boston, was the speaker at the March meeting of the Utica Academy of Medicine on March

Dr. Haggart's subject was the diagnosis and treatment of low back pain and sciatic pain. cussion was opened by Dr. Charles Hume Baldwin.\*

#### Ontario County

Dr. Alfred Wedd, of Rochester, was guest speaker at the March meeting of the Canandaigua Medical Society in the Canandaigua Hotel on March 9. His subject was "Coronary Artery Syndrome."

Dr. James F. Maltman was the host. Dinner was served at 6:15.\*

#### **Oueens County**

A joint meeting of the organized medical and dental professions of Queens County was held in the County Society Building on March 28 at 9:00 P.M.
"Medicine and Dentistry in the Days Ahead"

was the subject of an address by Capt. C. Raymond Wells, D.D.S. Dr. Douglas B. Parker, D.D.S., gave the second address, entitled "Medicodental Cooperation in Professional Practice."

A dinner was held at the Forest Hills Inn preceding the meeting. Members of the woman's auxiliary

were invited guests.

The Friday Afternoon Lecture on April 21 will be "Clinical Problems of Jaundice" by Dr. Sol S Lichtman, associate visiting physician, New York Hospital, and adjutant attending physician, Mt. Sinai Hospital.

#### Schenectady County

The regular monthly meeting of the county society was held in Schenectady in Ellis Hospital

Library on March 7 at 8:30 P.M.

The subject was "Assessing the Physical Conditions of Children in Health and Disease," and the speaker was Dr. Norman C. Wetzel, associate professor of pediatrics, Western Reserve University, and attending physician, University Hospitals, Cleveland, Ohio. Discussions were by Drs. J. J. York and D. E. Nitchman.

#### Westchester County

"Atypical Pneumonia in the Army" was the title of the scientific address at the regular meeting of the county society on March 21. The speaker was Dr. Alexander Langmuir of the Army Commission on Acute Respiratory Disease.

Wing Commander R. W. Durand of the R.A.F. and Sister Barnes, heading the hospital unit of a British ship which was recently undergoing repairs in a United States port, spent their three-week shore leave in voluntary service at Westchester's Grasslands Hospital. A dinner held in their honor on March 10 was attended by more than sixty county physicians, who heard Commander Durand relate his experiences in the service. County Public Welfare Commissioner Ruth Taylor and Dr. E. L. Harmon, director of Grasslands Hospital, expressed gratitude for the voluntary work done at the Hospital by the two British workers.

The Westchester Medical Veterans' Loan Fund has been set up by members of the Medical Society of the County of Westchester. The fund will be available for returning members of the service to aid in re-establishing their private practice or to serve other needs.

The New Rochelle Medical Society held a dinner meeting on Tuesday, February 15, at the Wykagyl Country Club. The meeting was a testimonial in honor of Dr. Frank B. Littlewood, who has just completed fifty years of medical practice in New Rochelle. The feature of the evening was an address by Dr. Littlewood, in which he reviewed his experiences and contrasted the conditions of medical practice fifty years ago with those of today. Following Dr. Littlewood's address, the president of the Society, Dr. Reid R. Heffner, introduced Dr. C. C. Guion, who presented Dr. Littlewood with a gift from the society, and brief addresses in tribute to Dr. Littlewood were given by Dr. Guion, Dr. E. Leslie Burwell, Dr. August L. Beck, Dr. Charles Ogilvy, Mr. Alex Norton, superintendent of the New Rochelle Hospital, Dr. Eugene Morrison, and others.

Dr. Burwell presented a gift to Mr. Hans Koehler, local pharmacist, who was also a guest of honor of the Society, in recognition of his having completed

fifty years of pharmaceutic service in New Rochelle.

#### Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
John H. Barry	75	P. & S., N.Y.	March 10	Forest Hills
Julius Brandwein	46	Ecl., Cincinnati	March 7	Manhattan
Henry Brodman	67	Cornell	December 26	Manhattan
Howard D. Chapman	73	Syracuse	February 22	Auburn
J. Steven Deane	55	Budapest	March 8	Corona
David Derow	63	P. & S., N.Y.	December 25	Manhattan
Leonard R. Donne	48	L.I.C. Hosp.	March 7	Brooklyn
William Frieder	60	P. & S., N.Y.	March 9	Manhattan
Charles E. Green	67	Albany	February 18	Brooklyn
Adolph Greenstein	57	Univ. & Bell.	March 8	Manhattan
James E. Harris	68	N.Y. Hom.	March 9	Manhattan
Herman E. Hayd	85	McGill	February 18	Buffalo
Isaiah L. Hoffman	64	Cornell	December 31	Brooklyn
William Jacobsohn	<b>7</b> 3	N.Y. Univ.	March 10	Manhattan
Walter H. Jones	82	N.Y. Hom.	March 10	Manhattan
Raymond B. Miles	45	Yale	February 2	Brooklyn
Lewis R. Oatman	<b>7</b> 6	Albany	March 1	Greenwich
Shirley R. Snow	80	P. & S., N.Y.	March 8	Rochester

#### DR. ADAIR NEW HEAD OF CANCER SOCIETY

Dr. Frank E. Adair, surgeon at the Memorial Hospital and chairman of the Cancer Committee of the American College of Surgeons, was elected president of the American Society for the Control of Cancer at the close of its thirty-first annual meeting held on March 11 at the Biltmore Hotel in New York City.

Dr. E. P. Lehman, director of the Virginia Cancer Foundation, was elected vice-president, and Dr. Eugene Pendergrass, Professor of Radiology at the University of Pennsylvania Medical School, was named secretary. Dr. Herman C. Pitts was elected chairman of the board of directors, Charles D. Hilles, assistant secretary, and Alan M. Wood, assistant treasurer.

Elected to the executive committee were Dr. James B. Murphy, in charge of cancer research, Rockefeller Institute; Dr. Cornelius P. Rhoads, former director of Memorial Hospital, now in the Army; Dr. John J. Morton, Professor of Surgery, Rochester (N.Y.) School of Medicine; Dr. George

M. Smith, Department of Anatomy, Yale University; Dr. Edwin B. Wilson, Professor of Vital Statistics. Harvard University School of Public Health.

tistics, Harvard University School of Public Health. Dr. Clarence C. Little, managing director of the Society, reported that less than \$2,000,000 was spent annually for cancer research. He said that the American public was contributing less than 50 cents a case toward cancer control work, "despite the fact that cancer is the nation's second highest cause of death." He emphasized that programs of cancer research in many parts of the country are being "greatly handicapped" by lack of funds.

Mrs. Harold V. Milligan, national commander of the Women's Field Army, said that Alabama last year made greater progress from an organizational and financial standpoint than any other state. She said that the Army's major objectives during 1944 would be to interest more men in cancer-control work, intensify efforts to teach cancer facts to children, and to work toward the establishment of more cancer-prevention clinics.

#### FORTY YEARS OF SERVICE

"This week the Council on Pharmacy and Chemistry of the American Medical Association enters its fortieth year of service to the public and the medical profession," the Journal of the Association for February 12 says. "Since its first meeting on February 11, 1905, the Council has fought continuously for rational therapeutics. It has created much change in the practice of therapeutics. Its activities and decisions are highly respected and are followed internationally by leading medical authorities; its advice is sought frequently by administrative, advisory, and educational bodies in this country and in others.... It is fortunate indeed for the public and the medical profession that there exists an unselfish body such as the Council which can give scientific consideration to rational therapeutics and issue its statements without fear or favor."

#### DEAN DEPLORES CONFUSING LANGUAGE

Dean Virginia Gildersleeve of Barnard College told graduates of the Dwight School for Girls at commencement exercises last spring that the nation needs more persons who knew reading, writing, and arithmetic, particularly those who could use English that was "simple and to the point"

and arithmetic, particularly those who could use English that was "simple and to the point."

She said "even some persons in high places" in Washington and New York did not know how to use the language "without confusing the public." In this respect she referred to civilian protection signs in store windows stating: "Illumination is required to be extinguished before these premises are closed to business." She suggested that "Put out your lights before closing the store" would have been better. The store signs are displayed "By Order of City of New York, Department of Water Supply, Gas, and Electricity."

## Woman's Auxiliary

#### To the Medical Society of the State of New York

#### Convention

REETINGS to all Auxiliary members and doctor's wives!

Again it is our privilege to welcome you to New York City for the Annual Convention of the Woman's Auxiliary to the Medical Society of the State of New York. This year our headquarters will be the Hotel Pennsylvania, the time May 8-11, inclusive. The Hotel Pennsylvania will have accommodations for all if reservations are sent in early. All functions will be informal; therefore short dresses will be in order. All doctors' wives, whether Auxiliary members or not, are cordially invited to attend the House of Delegates meetings and all social functions.

The Convention Committee will be on hand Sunday, May 7, to greet those who arrive early.

Your hostesses, the Kings, Queens, Nassau, and Suffolk County Auxiliaries, are looking forward to having each and every one of you at the Convention. Write to Miss Sue Braslow of the Hotel before

April 20 for reservations. Get your reservations in Sincerely,

MILDRED E. St. JOHN Convention Chairman

#### County News

Albany.-Mrs. John E. Heslin was very active in assisting in the Fourth War Loan Drive. Mrs. Albert Yunick, another member of the Auxiliary, has also been playing an active role in the Fourth War Loan Drive.

Broome.—The February meeting was held at the home of Mrs. John II. Robertson in Binghamton. Dr. Victor W. Bergstrom gave an analysis and discussion of the Wagner-Murray-Dingell bill. After a short business session, Mrs. Robertson reviewed the book Tomorrow is Forever by Gwen Bristow. At the March meeting, in the Nurses' Home of the Charles S. Wilson Memorial Hospital, Johnson City, the Nurses' Glee Club gave a short concert, after which an interesting talk was given on "The Romance of Jewels" by Mr. Kenneth Van Cott of Binghamton. Columbia.—The March meeting was a business

meeting. Luncheon and cards were enjoyed at 10 McKinstry Place, Hudson. Mrs. L. J. Early is the

program chairman.

Onondaga.—The season opened with a meeting at the home of Mrs. Charles D. Miller. The wives of all members of the State Medical Society now serving in the armed forces were guests at this meeting. Christmas party was held at the home of Mrs. John Buettner. A program of Christmas carols was presented by Mrs. Harry L. Gilmore, coloratura soprano. Mrs. Gilmore is one of the auxiliary members. Miss Hazel Armitage and Mrs. Grace French Tooke assisted Mrs. Gilmore. The Wagner-Murray-Dingell bill was discussed under the able leadership

of Mrs. Gerald Cooney, legislative chairman of the Onondaga County Auxiliary. A social hour followed this discussion.

A luncheon meeting was held in the Roof Garden of the Onondaga Hotel, in Syracuse, in February, Mrs. Beuttner and Mrs. Cooney acting as cochairmen. Guests were Dr. Leo Gibson, Dr. Dwight V. Needham, president of the Onondaga County Medical Society, and Dr. William Groat and Dr. John Buettner, advisers of the auxiliary. Dr. Gibson, chairman of a special insurance committee set up by the State Medical Society, spoke on "Medical Indemnity Insurance" and gave an outline of the plan which has been approved by the county society, known as "Surgical Care, Inc., of Central New York."

On March 14 a luncheon meeting was held at the Onondaga Hotel. Miss Edith Smith, dean of the Syracuse University School of Nursing, spoke on

the Cadet Nurse Training Program.

Rensselaer. Mrs. Joseph Lasko presided at a luncheon and business meeting held in the Marine Room of the Annex in Troy. Mrs. John J. Noonan and Mrs. Warren St. John were selected as delegates to the Annual Convention. Mrs. Charles A. Krauss and Mrs. Minnie Standard were named as alternates. Dr. Joseph S. Lawrence spoke at the last meeting again, opposing the Wagner-Alurray-Dingell bill. At the conclusion of Dr. Lawrence's talk, tea was served. Mrs. John J. Noonan and Mrs. Augustus J. Hambrook presided at the tea table. Mrs. Warren St. Lich was chairman of the tea. ren St. John was chairman of the tea.

#### MENTAL HYGIENE GROUP ELECTS THREE NEW MEMBERS

The election to membership on the National Committee for Mental Hygiene of Mrs. Anna M. Rosenberg of New York, regional director of the War Manpower Commission for New York City, and Mr. and Mrs. Harry Frank of Kintnersville, Pennsylvania, of the committee's vocational adjustment bureau, has been announced.

#### SUBSTITUTE FOR TALC ON RUBBER GLOVES

Re-emphasizing the very serious surgical hazard from the use of tale as a dusting powder for rubber gloves, M. G. Seelig, M.D., D. J. Verda, M.D., and F. H. Kidd, M.D., St. Louis, recommend in the Journal of the American Medical Association for December 11, 1943, that potassium bitartrate be used as a substitute.

### Additional Annual Reports

### To the 1944 House of Delegates Medical Society of the State of New York

#### Report of the Planning Committee for Medical Policies

To the House of Delegates; Gentlemen:

Organization .- In accordance with the mandate of the House of Delegates in 1943 the Committee on Planning for Medical Policies was organized. The President, Dr. Thomas A. McGoldrick, the President-Elect, Dr. Herbert H. Bauckus, the Secretary, Dr. Peter Irving, and the Speaker, Dr. Louis H. Bauer, were automatically members of the Committee. Dr. Edward R. Cunnifie was designated by the Chairman of the Board of Trustees to represent the Board. The Speaker appointed the following members: Dr. George W. Cottis, Dr. J. Stanley Kenney, Dr. Norman S. Moore, Dr. Walter W. Mott, Dr. Leo F. Simpson, and Dr. Herman G. Weiskotten. Dr. Joseph S. Lawrence, Dr. David J. Kaliski, Dr. Laurance D. Redway, and Mr. Dwight Anderson were invited to all the meetings of the Committee and made valuable anatisation. and made valuable contributions.

The Committee met in June, 1943, and organized, with Dr. Bauer as Chairman and Dr. Irving as Recorder. The Committee met seven times in all and studied a large number of subjects. It came to a conclusion on some of them, but others need further study. study. In fact, some of the policies on which conclusions were reached and on which recommendations are made may need further modification and

development.

General Comments on Problems Involved .- The Committee feels that changes in the methods of distribution of medical care are as necessary and as inevitable as changes in diagnostic and therapeutic methods. The medical profession must take the leadership and point the way for constructive, evolutionary changes which will effect a wider distribution of medical personal allowances. tribution of medical care at a lower cost, without endangering the high standards which now exist. The Committee has come to the conclusion that there is no one answer to the problem but that there are several answers.

There have been many reports issued from time to time on the subject of medical care. There have been various estimates of the number of people in the country who have inadequate medical care or none at all. The numbers have varied largely with

what the people reporting wished to prove.
Your Planning Committee, however, started off with the premise that it wishes to see everyone in the State of the Stat the State of New York receive adequate medical care of a high quality, and that if there is a single person who does not have such care available, it is

one too many.

The wartime boom in employment has shown definitely that people prefer a personalization of service. This is indicated by the fact that charity hospitals in times of slack employment are overcrowded and the semiprivate or private beds in the private and voluntary hospitals are not filled whereas at present the reverse is true—the turnover in charity hospitals is at a new low and private and voluntary hospitals are overcrowded.

Diagnostic procedures, private nursing care, and hospitalization have all increased tremendously the costs of medical care.

There is no evidence that the people wish different doctors or a different type of medical care, but they do wish that care to be more widely available and at a lower cost.

There is always a tendency among certain groupto stress the need for medical care among the inadequately housed, clothed, and fed section of the population, using the economic situation of these people as an argument for the overthrow of the American system of medical care. The economic situation of these people is what breeds the need for medical care and all the medical care in the world would not remedy their plight. The removal of economic barriers should be an end in itself and not used as an argument for a different system of medical care. This is an evidence of the failure of government and not evidence of the failure of medical care.

There have been many suggestions for changes in our present system of medical care, and your Committee has given a great deal of thought to most of these proposals.

The one about which one hears the most at the moment, and often in the past, is compulsory sickness insurance.

Compulsory Sickness Insurance.—Compulsory sickness insurance is in operation in the majority of the countries in the world. It works better in some than in others, but nowhere has it given as high a level of medical care and of health as exists in the United States. There is a tendency to mass medicine—that is, a tendency to treat everyone alike regardless of the individual needs of the patient; there is usually little personal relationship between the doctor and the patient, the doctor being responsible to the government and not to the patient; regulations, red tape, and interference with therapeutics render it impossible to give good medical care; it encourages malingering on the part of the patient and offers little incentive to the doctor to do good work; there is a growth of bureaucracy in order to administer the service, and politics is frequently a determining factor; it is wasteful and inordinately expensive, although advertised as "free medicine. There is little encouragement of preventive medi-cine—in fact, preventable diseases increase. For example, in England, which has had compulsory sickness insurance for the employed class since 1911, the rate for diphtheria is far higher than in this country. The percentage of cases of tuberculosis admitted to hospitals in an incurable state is far in excess of the rate here. Under our American system the quality of medical care has constantly increased and there is evidence that the quality would decrease under a compulsory plan.

Wagner-Murray-Dingell Bill.—Specifically, there has been introduced into Congress a bill! nown a the

Wagner-Murray-Dingell bill, which is a proposal to extend the present Social Security Act. Besides its provisions for increasing old-age and unemployment insurance and placing these under the jurisdiction of the federal government, there is a section devoted to medical and hospitalization benefits. This bill would entitle every person currently insured and his dependents to general medical, special medical, laboratory, and hospitalization benefits as defined in Section 11 of Title IX of the Act. It is estimated that, under conditions of full employment, at least 110,000,000 people would be affected by it. Senator Murray has stated that the figure may be 115,000,000 to 125,000,000. It makes no provision for the indigent.

The Surgeon General of the U.S. Public Health Service is designated as the administrator. He, with the approval of the Social Security Board, will have complete authority.

Although every physician legally qualified by a state may, if he consents to regimentation, participate in this compulsory sickness insurance scheme, the Surgeon General may by regulation prescribe the conditions of participation. He also would be authorized to determine what compensation the participating physicians may receive and would have the final say as to the manner in which they will be compensated, whether on the basis of fees for services rendered, on a per capita basis, on a salary basis, or on any combination or modification of these He would be authorized to limit the number of insured persons a particular physician may treat. He would be authorized to determine what constitutes the services of a specialist.

There is also created a National Advisory Medical and Hospital Council of sixteen members appointed by the Surgeon General, and he is chairman of that Council. The appointments are to be made from lists of names submitted by professional and "other" organizations There is no provision making it essential that any member of this Council be a physician, and even were they all physicians, the Council is purely advisory and has absolutely no authority.

While an insured individual may select, normally, from the list of participating general practitioners the physician to treat him, he will be denied that privilege if the physician's quota of patients, as established by the Surgeon General, is already filled. If he is in need of the services of a specialist, he will have no voice in the selection of that specialist, except as expressed through the general practitioner. The Surgeon General may arbitrarily assign an insured person to a particular physician if such person does not make his own selection.

The Surgeon General would be authorized to determine what hospitals may participate in the scheme. Hospital benefits will range from \$3.00 to \$6.00 for each day of hospitalization, not in excess of thirty days, as determined by the Surgeon General with the approval of the Social Security Board. The rates will range from \$1.50 to \$4.00 for each day of hospitalization over thirty but not exceeding ninety. If the insured is placed in an institution for the care of the "chronic sick," the rate will range from \$1.50 to \$3.00 a day. Instead of making such payments to the insured individual, the Surgeon General, subject to the approval of the Social Security Board, may make contracts with participating hospitals for the payment of the reasonable cost of hospital service at rates neither less than the minimum nor more than the maximum rates specified, such payment to be full reimbursement for the cost of essential hospital

services, including the use of ward or other less expensive facilities compatible with the proper care of the patient.

It is very doubtful if the private hospitals of the country could continue to exist under such rates.

Insured persons will also be entitled to certain laboratory and other benefits, the nature and extent of which will be determined by the Surgeon General, but which will include chemical, bacteriologic, pathologic, diagnostic and therapeutic x-ray, and related laboratory services, physical therapy, special appliances prescribed by physicians, and eyeglasses prescribed by a physician or other legally qualified practitioner.

To finance the provisions of this bill, each included employer will be taxed annually at the rate of 6 per cent of his payroll, excluding all remuneration paid to an employee in excess of \$3,000 a year, and each insured employee will be taxed 6 per cent annually of the wages received up to \$3,000. Self-employed persons will be required to pay 7 per cent of the market value of their services annually up to \$3,000. States and political subdivisions and their employees will be taxed at the rate of 3.5 per cent up to \$3,000, if such governmental units voluntarily, by compacts, come within the coverage of the Social Security Act.

It is estimated that under conditions of full employment, from \$12,000,000,000 to \$15,000,000,000 a year would be raised, of which about one-fourth would be earmarked for medical care. How much would be for actual medical care and how much

for administration, no one knows. Section 12 of the bill provides grants-in-aid as a

stimulus for medical education, research, and for the prevention of disease and disability. The Surgeon General of the Public Health Service will determine who will be the recipients of such grants and the specific amounts that will be granted. He will determine, too, whether a particular project is worthy of

stimulation.

This bill, if enacted, would result in a bureaucratic control of medicine. It contains most of the evils of any compulsory sickness plan as previously item-It would undermine medical education and research. There would be little incentive to good medicine and both patient and doctor would be

regimented in medical care.

The proponents of the bill state that there will be no bureaucracy, no red tape, a minimum of reports, and no political interference. With the government controlling everything pertaining to the practice of medicine; with the tremendous expansion of ad-ministrative machinery that would take place; with the example of other government bureaus and their multiform, constantly changing regulations; with the example of the red tape and interference of the former Federal Emergency Relief Administration; with the evidence of low quality of medical care in other countries under government insurance plans; and, finally, with the tremendous sum of money involved, it is impossible to foresee anything but a deterioration of medical care and health standards in this country should the bill be enacted.

Your Committee recommends reaffirmation of the Society's previous stand on compulsory sickness insurance in general and disapproval of the Wagner-

Murray-Dingell bill.

Your Committee feels that there are other methods of increasing the distribution of medical care and of easing its costs which are evolutionary in character and will meet the needs of the public, and at the same time insure its quality as well as increase its quan-

Voluntary Medical Insurance.—The American people desire and demand a plan or plans for the prepayment of medical care costs. This demand must be met.

The Committee feels that voluntary medical insurance is one of the answers to this demand. The principle of this type of insurance has been approved by the American Medical Association and by this Society. This Society has also given approval to three of the plans operating within this state. Progress so far has been slow, but considerable valuable experience has been accumulated. Two of the reasons these plans have not madefurther prog-ress are: lack of education of the public on the benefits to be obtained, and lack of active partici-pation on the part of the profession. The time has now come, in the opinion of the Committee, for the State Society to stimulate these plans, facilitate their expansion, and exercise supervision over the whole problem. Hence, the Committee recommends the establishment of a Bureau of Medical Care Insurance by the State Medical Society, under a full-time director and with the necessary personnel. This Bureau is to have the following duties:

"Correlate the activities of the A.M.A., other

states, and other countries.
"Educate physicians of New York State by means of the JOURNAL and other publications.
"Report regularly to the Council and to the

Committee on Public Relations and Economics. "Make available material for the Publicity

"Meet with directors of present voluntary medical care plans of New York State to assist in . promotion and in study of actuarial experience.

"Meet with county societies in which no plans are operating, to the end that New York State may be wholly covered by voluntary prepayment

plans.
"Meet with Departments of Social Welfare and Insurance and other official agencies of the New

York State government.
"Prepare material for submission to the Journals

of various county societies.
"Meet with representatives of the Hospital Association of New York State and with the Hospital Insurance or Blue Cross organizations.

Study and report on commercial insurance

plans and policies.

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"Meet with industry, labor, management, that

is sponsoring medical care programs.
"Establish a central bureau as a clearing house

for existing plans.
"Study possibilities and procedures for a statewide plan directed and controlled through the Medical Society of the State of New York.

The selection of the Director and personnel to operate this Bureau should be made by the Council The organization and operation of this Bureau will be a somewhat expensive venture, and in view of the reduced income of the Society during the war it would not be possible to establish such a Bureau with proper financial support within the dues income of the Society without cutting down on some of the other necessary activities. This is an emergency for which says activities are available; gency for which our general funds are available; and it is recommended that for the period of the war the financial support of this Bureau should come out of funds other than the general dues income, if the Trustees find it necessary.

Hospital Insurance and Medical Service.—The modern treatment of illness includes expenses for

(1) hospitalization, (2) nursing care, (3) diagnostic procedures, and (4) medical and surgical service.

For the horizontal patient, the last item is usually the smallest. The first two should be covered by prepayment plans for hospital care and the latter two by medical expense indemnity insurance. would probably be a money-saving investment for welfare authorities to carry both these types of insurance to cover those medically indigent persons for whom they are responsible.

For the ambulatory patient, medical expense indemnity insurance will adequately cover the cost of doctors' services.

Preventive medicine, as in the field of tuberculosis and venereal disease, is a true function of state and local government in supplying facilities, provided that the purely medical aspects of the problem are under the control of the physician.

In further elaboration of the preceding, the Committee concurs with the action of the American Medical Association in opposing the inclusion of medical services such as pathology, radiology, anesthesiology, and any other medical service, in a hospital insurance plan, and proposes that such services be insured for under a medical care plan. The Committee is wholly in accord with the extension of group hospital insurance as such, and believes that it should have the widest coverage possible. The Com-mittee objects to the inclusion of medical service in a group hospital plan for the same reasons which were adopted by the House of Delegates of the American Medical Association in June, 1943. It feels that these medical service features properly belong in a medical expense indemnity insurance plan. The action of the House of Delegates of the American Medical Association is quoted herewith:

That the House emphatically reiterate that it disapproves the injecting of a third party into the personal relationship of the patient and the physician, and that hospitals should not be permitted to practice medicine.

That the practice of radiology, pathology, and anesthesiology is the practice of medicine just as much as is the practice of surgery or internal medicine, and that it is only a short step from including the first three in a medical service plan to including the whole field of medicine in such a plan

That the public should be educated to realize that the hospital-created monopoly control of radiologic or any service as a source of profit beyond the normal provision for replacement, department development, and proper proportion of over-all costs of operation of the hospital should not be permitted, nor can the hospital rightfully use per diem charges against all the hospital patients to support a radiologic or other department devoted to creating bargains in radiologic or other services in order to make hospital group insurance more attractive. To permit either will result in decrease of the quality

of service and increased cost to the patient. The medical profession must watch with care all proposed plans for medical service and endeavor to prevent the acceptance of any plan which includes medical service

under the control of the hospital.

The effectiveness of this program can be attained only if constituent state medical associations and component county medical societies use their influence on hospitals in their respective localities and exercise control over the local members of the medical

profession.

The public must be educated on what it will mean to them in the way of inferior medical care if these dangerous trends are not curbed.

"G. In the relationships of the medical staff and the board of directors of a hospital there should be no intermediary. The staff should have direct access to the board."

With reference to the use of the insurance principle in the case of welfare patients, it is recommended that the Council suggest to the Welfare Department that it consider the possibility of the use of the insurance principle rather than the present

Regional Centers for Diagnostic Aid.—In discussing postwar planning, many members of organized medicine have advocated a closer relationship with governmental agencies. This, they claim, would be a desirable step forward in providing adequate medical care for all. One of the most frequently heard criticisms of the medical profession which has been repeated over many years is the statement that persons living in the rural areas are not provided with proper medical service. This, it is explained, is due to two causes-viz., the lack of a sufficient number of medical men to care for all, and the fact that proper facilities for practicing with modern medical methods are not available. As the result of the second condition, many young doctors, fresh from medical school and an extended hospital internship where every facility for making whatever clinical tests are necessary and where information from radiologic examinations is at hand, suddenly find themselves in an area devoid of any means for making the clinical laboratory tests so necessary for the modern physician to possess in order properly to treat the patient. It is not surprising that, finding himself in this situation, he becomes discouraged and moves away to some town or city where the necessary facilities are available, or, even worse, remains there and does not keep pace with medical advance, which means deterioration of the individual and rendering a medical care which does not fully protect the interest of his patient.

In looking about for some plan that would correct these conditions, that would attract more medical men and develop conditions that would encourage them to remain permanently in the area and at the same time realize a closer relation with governmental agencies, the question of a diagnostic center might be considered. Some advantages they would offer would be that with more men located in the district and with the aid of these centers a higher standard of practice would follow, to the benefit of

the immediate commonwealth. The question should be studied from all angles and provision made so that disadvantages that might occur would be prevented. A number of questions suggest themselves to us, as their answers will determine in a great degree the extent of our success in this undertaking. Where should these diagnostic centers be located? What type of center and what form should they assume completely to overcome this situation in rural counties of our state? What type should the personnel be? How should they be supervised? To what extent should they give service to the medical men? Should all patients be compelled to visit the center in order to obtain the benefits intended for them?

It is hardly necessary to mention that experience will finally answer these questions, but certain safeguards should be erected and modified as needed.

Location of Centers. - The Medical Society of the State of New York should make a survey of the needs of the different areas in the sparsely settled counties of the state. This would provide the information necessary to select intelligently the locations of greatest value. They should be selected with a view of transportation to and from the clinic and if possible, in relation to existing hospitals.

Supervision.—Supervision should be by a board, the majority of which should be members of the medical society. They should select the professional members of the personnel and should set up qualifications required for those who would fill the positions, so that efficient and worth-while work would be assured. They should determine the number necessary to do all the work and to make the rules under which the particular clinic would be operated. The staff should consist of the required professional members, such as pathologists, clinical pathologists, radiologists, and technicians. There must, of course, be a lay staff of clerks, etc, appointed by either

county or state officials.

The center should be subsidized, the least desirable subsidy being the federal grant, the more desirable, state aid, and the most acceptable being local community aid from county taxes. However, in this description we are visualizing a center supported by state aid. Those who are in a position to pay for the work should do so but all fees collected must be turned back to the state. All salaries and rent or purchase of building and all other expenses. of the center should be borne by the state. The rules under which the center would operate should take into consideration the fact that its facilities are at the disposal of the indigent poor as well as those able to pay. Provision should also be made to send technicians out to collect specimens and make radiologic examinations at the patient's home, either in an emergency or when the patient cannot safely be transported to the center. Patients with certain fractures, particularly those treated by traction, should have certain necessary films made at the patient's house. Again, to prevent unfair competition with those medical men residing in this area, private practice should not be permitted to any member of the staff. All patients should be returned to the doctor who directed them to the center.

The work of these centers should not be really for the purpose of furnishing a diagnosis but of making the clinical tests and promptly informing the physician in attendance of the result of the examination or tests. There should be no treatment provided. Blood transfusions could be arranged for by the doctor, all pathologic work, testing of donors and recipients being done at the center. Basal metabolism tests and all other clinical tests, blood examinations, and radiologic examinations should be

available to every doctor in that area.

The question now must be answered—would these centers as depicted here fully correct the condition which has brought forth many criticisms of our medical service? We believe that the establishing of the centers of this type in localities should be It would determined after a state-wide survey. attract physicians to the area and would raise the standard of medical service to the benefit of the entire community. In the creation of such a program or in the initiation of a movement to secure it, one must always remember that the easiest of all things is to write a bill for a model plan, only to be disappointed in what finally becomes a law. However, the demand for relief of this condition has been

heard over many years, and if we are to have closer relations with governmental agencies, we should lead the way. Again these centers, we believe, can be created and operated in the carefully selected areas with no damage to a free and unfettered practice of medicine. Therefore, the Committee recommends that a special committee or subcommittee be appointed by the President to make a survey of New York State to determine the need for such a program and the areas to be cared for. The suggested methods of operation are, of course, tentative, and, if the survey indicates the desirability of establishing such diagnostic centers, then the details of management would have to be worked out carefully

Industrial Medicine.—Industrial medicine with all of its possible ramifications in the future deserves and even demands immediate intensive study and cooperation by organized medicine, to the end that this relatively recent special field shall not become a problem child.

The Council on Industrial Health of the American Medical Association has done a vast amount of constructive planning in this field, and has set up carefully planned programs for committees on industrial health, not only in the various state societies, but

also one for the county society.

It may truthfully be said that if an active committee in the county medical society carried out in full the program recommended for such a society, it would result in far-reaching benefits to industry, to labor, and to organized medicine. The innumerable problems that arise involving the interests of each group would have a common meeting ground where these might be resolved by cooperation and education. Farsighted policies could be outlined that would result in satisfaction to industry and labor and a true authority to organized medicine in matters of health.

In the sixty-two counties in New York State not over forty would need such a committee. Most of them have committees appointed, but on the authority of the New York State Department of labor, the activities of the county medical societies in the field of industrial health have been quite limited up to this time. A few of the counties—Erie, New York, Queens, and one or two others have done a limited amount of exploratory work in

this field—and there the matter stands.

Your Committee feels that this is a subject that demands a much more energetic consideration in the

immediate future.

In carrying out this program, the Committee invites attention to the program of the American Medical Association for state and county societies. The recommendations for both are quoted herewith:

The medical needs of industry can only be determined through familiarity with the character of industrial processes, hazards, and health programs existing in the com-

"B. A census of the physicians specializing in, or giving attention to, industrial practice with their industrial connections and the scope of the service they provide should be

compiled.

The type of service that the private practitioner can render to the small plant through a health maintenance program needs investi-

"D. Physical examination is the most likely basis for early common interest to industry and the physician alike and needs careful study and control.'

Then under "Correlation":

"The activities of local organizations which are or should be interested in industrial health problems need coordination to avoid duplication of effort. The list should include:

- Health Departments
- 2. Industrial Hygienists
- 3. Industrial Nurses

4. Safety Councils

- Manufacturers' Associations 5.
- 6. Labor Organizations
- 7. Casualty Insurance Adjusters

Bar Associations

"An Industrial Health Program for a county

medical society

"Every medical society in a county having sufficient industrial concentration to justify it should organize a committee on industrial health. There should be representation on the committee from (1) private practice, (2) industrial practice, and (3) the local health department. These are and (3) the local health department. the essential professional groups needed to supply an adequate health service to industry in any community.

"It is desirable also that an executive officer of the county medical society should be a member of

the committee.

"The Objectives of the Committee:

"The committee should understand the components of an adequate industrial health service and be prepared to adjust them to existing local medical and public health facilities and to patterns of community medical practice.

"The essentials of an industrial health service

- 1. A competent physician who takes genuine interest in applying the principles of preventive medicine and hygiene to employed groups and who is willing to devote regular hours to such service in the working environ-
- 2. Industrial nurses with proper preparation, acting under the physician's immediate supervision or under standing orders developed by him or by the committee on industrial health of the county medical society.
- 3. Industrial hygiene service directed at improvement of working environment and control of all unhealthful exposures, to be provided by physicians and others with guid-ance and assistance from the specialized personnel in state and local bureaus of industrial hygiene.

4. A health program which should include:

(a) Prompt and dependable first aid, emergency and subsequent medical and surgical care for all industrially induced disability.

conservation of employees (b) Health through physical supervision and health

education.

 (c) Close correlation with family physicians and other community health agencies for early and proper management of nonoccupational sickness and injury.

(d) Good records of all causes of absence from work as a guide to the establish-

ment of preventive measures.

"Health education should emphasize particularly nonoccupational factors which are of importance to the health of workers—nutrition, housing, proper use of leisure time, recreation, and other related activities."

"Following preliminary organization, the activities of the county medical society's committee on industrial health will fall mainly under four major headings:

- (a) Investigation of local causes of lost time in industry as a basis for necessary remedial service.
- (b) Coordination of community industrial health facilities.
- (c) Frequent education of the public about the benefits of an industrial health program.
- (d) Continuous education of the medical profession as a means for elevating standards of industrial health service."

More specifically, we recommend that the Committee on Public Health and Education increase the time allotted to industrial medicine in its educational program. Facilities should be given physicians returning from military service, who may wish to engage in this field. There is at the present time a definite shortage of physicians trained in industrial The State Society Subcommittee on Industrial Medicine is urged to stimulate the activity of county society committees in carrying out the above program of the American Medical Association, and to form committees in areas where they are needed. The State Department of Labor has been doing a splendid piece of work in this field, and it might be increased and extended if the medical staff of the Department of Labor were increased so that members might assist county society commit-tees in coordinating their work with the definite work of the Department. It is recommended that the Council bring this matter to the attention of the proper state authorities.

The Nursing Problem.—The Committee believes that a more general understanding on the part of physicians of the problems of the nursing profession will result in mutual benefit to both the nurse and the doctor. In support of this belief it may be added that the Committee has explored the possibility of better understanding on such subjects as nursing education in general and the separation of the financial affairs of the hospital from the nursing training school in particular. Likewise, the problem of separating or distinguishing between the various levels in educational background and training of the nurse, and whether a differentiation on this basis will ease the burden of the high cost of nursing care, are subjects which have been studied and which concern the medical profession directly.

Because the destiny of the medical profession is allied with that of the hospital and that of the hospital with the nurse, it is imperative that a relationship which recognizes the interdependence of the physician, hospital, and nurse be established. It appears possible, if too great an error is made in bringing together these three services, or if the correlation does not meet with public approval, that one or all of the services may suffer by the encroachment of public control through government or insurance channels. It is apparent that the leaders of the nursing profession recognize this trend as a possibility. They are at this time concerned also because there is a trend in nursing away from the professional toward the vocational status.

Members of the New York State Nursing Council for War Service have expressed a desire to have a planning group within the nursing profession which might work with a medical committee in studying the changing order.

It is, therefore, the opinion of the Planning Committee that a continuation of the study of the changing trend in nursing in relation to medicine be authorized, and that during the coming year, now that the contacts have been made, a closer and more active exploration of the field be made by joint meetings with a committee representing the nursing profession and, if possible, one representing hospital administration.

Medical Education.—The Committee recognizes that the future health and medical care of the American public depend primarily upon the nature and quality of programs of medical education maintained for the training and preparation of the physicians who must assume responsibilities in this field.

As war measures, certain fundamental changes have been virtually forced upon medical education. Army and Navy training programs in general have been planned to provide training for the largest possible number of men in the shortest possible time. Although the medical education program itself has country, military objectives have tended to domibeen left in the hands of the medical schools of the nate the adaptation of medical education to war needs. Although the necessity of such domination may be recognized as an essential war measure, it is important that we do not close our eyes to the possible effects of these wartime changes upon the whole field of medicine. The medical colleges of the country were asked to increase the size of their entering classes by 10 per cent. They were asked to adopt accelerated programs which, by the elimina-tion of long vacation periods, would permit students to complete the four-year medical course in three calendar years. They were asked to adopt minimum entrance requirements of two years of premedical college work and later to accept premedical courses of sixty and eighty weeks' duration established by the Army and Navy, respectively. Army and Navy programs provide for the assignment of students to the medical schools of the country rather than for selection by the individual medical schools.

Finally, internships have been limited to a ninemonths period and only a small percentage of graduates are permitted to secure graduate experience

beyond the internship.

It is apparent that the present wartime program not only handicaps a student during his medical course and subsequent hospital training, but brings him into the medical school more immature and less well prepared for the study of medicine than were more than 95 per cent of the students under the normal peacetime program.

Although it is recognized that the potentialities of the individual will probably ultimately determine his future development, the Committee believes that it should be recognized that the present program is not conducive to a sound development for the practice of medicine. The Committee believes it is of the utmost importance that careful attention be given to the re-establishment of satisfactory standards of educational programs just as soon as the war needs will permit. This does not mean that the medical schools should blindly follow their prewar programs. On the other hand, the present upset in medical educational programs offers opportunity for careful evaluation and postwar planning by the individual schools.

Finally, the Committee deplores the apparently increasing tendency of the various states not only

to permit unqualified practitioners of the healing arts to treat the public but to grant them full licenture for the practice of medicine and surgery.

It is recommended that this section of the report be referred to the Committee on Public Health and

Education.

A more detailed report on Medical Education is attached as an appendix to this report.

Other Matters.—The Committee considered the question of Workmen's Compensation, which has a part in any planning program. However, since a separate committee of the Council has presented a detailed report on the subject of Workmen's Compensation, the Planning Committee is making no other specific recommendations. The Committee also gave some thought to the question of a Basic Science Law, and, again, as this subject is in the hands of a special subcommittee, the Planning Committee offers no comment.

Continuance of Committee.—The Committee feels that its work is not completed, and that its continuance should be authorized for another year. It therefore urges the House to authorize the reappointment of the Committee on the same basis as last year, namely, that it consist of the President, President-Elect, the Secretary, the Speaker, the Chairman of the Board of Trustees or a member of the Board designated by him, and six members to be appointed by the Speaker, the Committee to elect its own Chairman and Recorder.

Respectfully submitted,
Louis H. Bauer, M.D., Chairman, Hempstead Herrer H. Bauckus, M.D., Buffalo George W. Cottis, M.D., Jamestown Edward R. Cunniffe, M.D., Bronx J. Stanley Kenney, M.D., New York Thomas A. McGoldrick, M.D., Brooklyn Norman S. Moore, M.D., Ithaca Walter W. Mott, M.D., White Plains Leo F. Simpson, M.D., Rochester Herman G. Weiskotten, M.D., Syracuse Peter Irving, M.D., Recorder, New York March 27, 1944

#### Appendix on Medical Education

(This Appendix was prepared by Dr. Herman G. Weiskollen, who was designated by the Committee to make a survey and report on medical education.)

In connection with a consideration of wartime and postwar medical education, it is probably best to consider first its prewar status and the effects of the war upon it. It should be emphasized that medical education in the United States was in a very healthy

state just before the war.

Beginning with the survey of medical schools of the country in 1909 and 1910, which was initiated by the Council on Medical Education of the American Medical Association and at their request sponsored by the Carnegie Foundation, there has been a progressive improvement in medical education throughout the country. The number of medical schools has been reduced from approximately one hundred sixty to seventy-seven. The surviving schools have effected many changes in the whole field of medical education, involving premedical college education, the medical course itself, and also postgraduate and graduate education.

In 1940 there were sixty-six four-year medical schools in the property of the country of the surviving premedical schools.

In 1940 there were sixty-six four-year medical schools in the United States, the number having remained unchanged since 1933. Of these sixty-six

four-year medical schools, twenty-three were state-There were supported and three city-supported. also ten two-year medical schools or schools of basic medical sciences, offering the first two years of the medical course. All but two of these schools (Dartmouth and Wake Forest) were state-supported. Two of these schools of basic medical sciences were developing into four-year medical schools. The Bowman-Grey (Wake Forest) Medical School has completed this development and the University of Utah School of Medicine will have the full four-year course established by January, 1944. In addition, there was one medical school which offered only the last two years of the medical course. This school (Rush Medical College) has now discontinued its existence and is merged with the University of Illinois School of Medicine. The Alabama State Legislature has approved appropriations for the development of the University of Alabama School of Medicine (a two-year medical school) into a full four-year school. At least one other of the two-year schools has looked forward to the development of a full four-year course. Difficulties in the field of medical education have been such that it has become increasingly difficult for the two-year medical schools to maintain an independent existence. Recognizing this, the University of West Virginia School of Medicine (a two-year medical school) has effected an affiliation with the Medical College of Virginia. At least three of the remaining two-year medical schools do not at the present time appear to offer a sufficiently promising future to warrant their continued existence.

In addition to the approved medical schools, there have been in existence during the past few years five unapproved medical schools. It would appear that only one of these has up to the present time offered any promise whatever, as far as the successful continuation of the medical school is concerned. One or two of the schools have served virtually as "diploma mills" and have granted many M.D. degrees to osteopaths. Although there are only two states whose licensing boards recognize any of these unapproved medical schools, attendance at these schools has been greatly stimulated, especially during the period of the war, not only by the excessive number of applicants to the approved medical schools, but by the fact that students in unapproved medical schools have been eligible for deferment by the draft boards. If present legislation in the State of Massachusetts remains unaltered and becomes effective and other states retain their present status of licensure, it is to be expected that all but one of the unapproved medical schools of the country will be forced out of existence. The State of Illinois licensing board will probably continue to accept the graduates of Chicago Medical School (an unapproved school located in Chicago).

Requirements for Admission.—During the recent years there has been a gradual but progressive increase in requirements for admission to medical schools of the country. These requirements have increased from high-school graduation in many of the schools of the country in 1905 to 1910, to a required minimum of two years of college work including specified courses in physics, biology, and chemistry, including organic chemistry. The Council on Medical Education and Hospitals of the American Medical Association and the Association of American Medical Colleges have retained such a minimum two-year requirement. However, the number of individual schools accepting students with such minimum requirements decreased from

thirty-two in 1936 to eleven in 1940, and was further decreased to eight in 1941. In the latter year only 1.2 per cent of the medical students were admitted to the approved medical schools of the country on the basis of less than three years of approved college work. In 1940 four of the medical schools of the country required a Bachelor's degree for admission; one required four full years of college work, and four schools required three years of college work and a Bachelor's degree at the end of their freshman year. It would thus appear that regardless of the stated minimum requirement of two years of premedical college work, practically all of the medical schools of the country have been operating on the basis of standards higher than this. It is interesting to note that in 1940, 67.4 per cent of the graduates of the medical schools of the country had a Bachelor's de-

Although standards for admission to medical schools of the country have been thus increasing, the requirements for admission have become less specific. Most medical educators are definitely opposed to rigid premedical college courses which offer little opportunity for individual development. It is probably worth while to examine in some detail the basis for these increasing requirements for admission to the medical schools of the country which have been self-imposed by the individual medical schools and the individual students in spite of the fact that the minimum requirements as stated by the Council on Medical Education and the Association of American Medical Colleges have remained at the two-year There are many factors which premedical level. have affected the extension of premedical education. Life in general, as well as the practice of medicine, has tended to become more complicated; and recognition of the importance of a broad background of education in preparation for the practice of a profession has become rather general. There is probably no professional career which carries heavier responsibilities and requires more mature judgment than does the practice of medicine. Thus from the standpoint of maturity of the individual, many have advocated an extension of the period of preparation for a career in medicine. Advances in medicine have emphasized the importance of a thorough grounding in chemistry and many of the medical schools have seen fit to require qualitative and quantitative analysis and physical chemistry in addition to general and organic chemistry. It is practically impossible to meet these latter requirements in two years of college training. Furthermore, there has developed a general recognition that the field of medicine is so broad that it not only offers unusual opportunities to men with a great variety of interest and special training, but requires a large group of individuals with varied backgrounds if medicine is to continue its development. Most advances in medicine have resulted from the activities of individuals with special interests and special training in some one of a variety of special fields. Rigid premedical college courses of two years' duration offer little opportunity for a student to develop such special interests or to acquire advanced training in the fields of these interests. The medical course itself has been vastly improved and the students with special interests are frequently offered stimulus as well as the opportunity to carry these interests into the field of medi-

Didactic classroom teaching has been largely done away with and medical education has been developing into a very high grade of professional education as contrasted with the "secondary school" type of program all too frequently previously followed.

Interested students have been offered opportunities for elective work during summer vacations as well as during the academic year. Students themselves have assumed an attitude of desiring not merely to acquire the right to practice medicine by securing an M.D. degree from an approved medical school and a license to practice medicine. This is evidenced by the fact that although required by only twelve medical schools and twenty-two licensing boards, practically all medical graduates of recent years have served internships of from one to three years. The eighteen months' to two years' internships have become more popular with graduates, and these were frequently followed by assistant residencies or residencies lasting from two to five years.

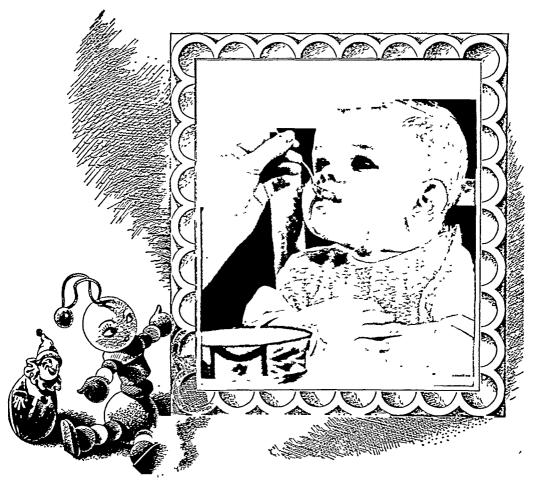
Wartime Changes in Medical Education.—As war measures, certain fundamental changes have been virtually forced upon medical education. Army and Navy training programsingeneral have been planned to provide training for the largest possible number of men in the shortest possible time. Although medical education has been left in the hands of the medical schools of the country, the military objectives have tended to dominate the adaptation of medical education to war needs. Although the necessity of such domination may be recognized as an essential war measure, it is important that we do not close our eyes to effects of wartime changes upon

the whole field of medicine. The colleges of the country were asked to increase the size of their entering classes by 10 per cent. They were asked to adopt accelerated programs which by the elimination of long vacation periods would permit students to complete the four-year medical course in three calendar years. They were asked to adopt minimum entrance requirements of sixty semester hours and later to accept premedical courses of sixty and eighty weeks' duration established, respectively, by the Army and Navy. Finally, internships were limited to a twelve months' period, beginning with the date of graduation, and it is now proposed to limit them to nine months.

To gain some idea of the effect of the sum total of these changes in medical education, it is necessary to consider the effect of each change. At the time of the survey of medical education conducted between 1934 and 1937, it was found that many of the medical colleges of the country had an unwarrantedly large number of students for whose training adequate clinical facilities were not available. It was suggested that these colleges reduce the size of their classes in order that satisfactory standards might be maintained. Essential as it may be to the war effort, a 10 per cent increase in the size of the entering classes cannot fail to result in a lowering of the standards, especially with the great depletion of the faculties of the colleges resulting from the war.

The effect of the accelerated program on medical education is difficult to estimate. Whether a student can develop as satisfactorily under a continuous intensive three-year program as he would under a more leisurely four-year program is open to serious doubt. Although the long summer vacation provided an opportunity for needy students to earn money, it undoubtedly served other and probably more important purposes. It gave students an op-portunity for unhurried deliberation and orientation. It provided an opportunity to follow up for a period certain special interests. A considerable percentage of the better students who were able to do so spent these vacation periods in pathologic or bacteriologic laboratories, in tuberculosis or general hospitals, and frequently developed interests which determined

[Continued on page 920]



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[Continued from page 918]

or greatly influenced their future careers. It gave faculty members opportunity for reviewing and replanning courses, as well as an opportunity to devote some leisure time to special interests and uninterrupted research carried on either in their own departments or at special laboratories such as those maintained at Woods Hole or Bar Harbor where they worked in close association with outstanding men working in their own and allied fields.

There have been many advocates of intensifying and shortening the medical course. It is interesting that these advocates have not been from the ranks of the intelligent medical profession nor from the student body, who have tended to voluntarily lengthen their medical training far beyond any offi-

cial requirements.

The forced adoption of minimum entrance requirements have denied a student the right to take more than the minimum premedical course before entrance to the medical school. Under the wartime program no student has an opportunity to do major work in any subject, or even to develop any special interests during his college course. With a minimum of college work he enters medical school as an immature boy between 18 and 19 years of age, ill prepared to assume the responsibilities of a medical student.

Thus the wartime program not only handicaps a student during his medical course, but also brings him' into the medical school more immature and less well prepared than were 95 per cent of our students

under the normal peacetime program.

During peacetime inadequacies in fundamental training might be, at least in part, compensated for by prolonged internships and residencies. However. under the present wartime program, medical school graduates are allowed but twelve months (and it is now proposed to allow but nine months) in which to complete their intern training. It is true that a very limited number are permitted an additional nine months or even two nine-month periods if they happen to be in essential positions. In other words, the medical school graduate is only by chance free to determine the nature or extent of his graduate training.

Under the present program the potentialities of the individual will probably ultimately determine his future development. However, I believe that it should be recognized that the program itself is not conducive to a sound development of the practice of medicine.

It would appear to be of the utmost importance that careful attention be given to the re-establishment of satisfactory educational programs, just as

soon as the war needs will permit.

The restoration of satisfactory standards for admission to the medical schools of the country during the postwar period may be rather readily effected if the keen competition for admission to medical schools continues and premedical student advisers use sound judgment.

There is also little question but what medical school graduates will of their own volition seek opportunities for satisfactory internships and residencies to prepare them adequately for practice.

However, it is not clear what the attitude of medical educators and medical schools will be toward possible continuance of the accelerated program in connection with which the medical course itself is completed in three calendar years. The fact that under the accelerated program the income from tuition and fees has been increased by 331/2 per cent may prove to be a definite handicap to certain schools who would otherwise wish to return to the normal four-year program. There has been a tendency on the part of many schools which have been largely dependent for their budgets upon income from tuition to increase their budgets as their incomes from tuition have increased. These schools may find it very difficult to adjust their finances to a restoration of the normal four-year curriculum Decisions in regard to this matter may greatly influence the number of medical school graduates during the postwar period.

If the accelerated program were to be continued during the next ten years, the medical schools of the country would graduate between 70,000 and 80,000 physicians as compared with approximately 50,000 graduated during the past ten years. During recent years the number of physicians graduated by the medical schools has been greatly in excess of the

number of physicians who have died.

Undoubtedly, careful consideration should be given to the probable needs of the country for physicians during the postwar period and this subject should have separate and careful consideration. April 3, 1944

#### Supplementary Report of the Board of Trustees

To the House of Delegates; Gentlemen:

At the meeting of the House of Delegates in May, 1943, a resolution was adopted that the position of the Director of the Bureau of Workmen's Compensation of the State Medical Society be made a fulltime one at a suggested annual salary of fifteen thousand dollars (\$15,000) and for a term of five The Director was to give up the private practice of his profession. Implicit in the whole resolution was that the present incumbent, Dr. Kaliski, was to be continued in office. It may be stated at the outset that at that time there was practical unanimity as to the desirability of having Kaliski do this work.

When the matter was submitted to the Board of Trustees, it was apparent at once that if they approved a contract which literally embodied the terms of the resolution, the Society would be committed to the largest financial obligation ever entered into with an individual employed by it during its entire history, and it was likewise apparent that this com-

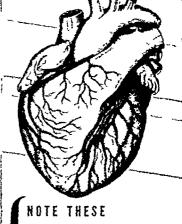
mitment would be undertaken in a time of greatly depleted income due to war conditions. gravity of the undertaking led the Trustees into a very full discussion of the entire situation. Part of the discussion was directed to a precise determination of the duties of the Director of Workmen's Compensation. A further subject was the desirability and possibility of having part of the compensation paid by the State Society and part by one or more component county societies. The length of the contract was also given serious thought. Many regular and special meetings were held through a period of months in an effort to clarify the situation. At one time a contract for a limited period of time, shorter than that suggested in the resolution, and for a lesser consideration, was offered to Dr. Kaliski and he rejected it. He proposed an alternative contract which, it should be stated, would have provided for an appreciably lesser amount of compensation and a shorter period of time than suggested in the origi-

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When the matter was submitted to the Board of Trustees, it was apparent at once that if they approved a contract which literally embodied the terms of the resolution, the Society would be committed to the largest financial obligation ever entered into with an individual employed by it during its entire history, and it was likewise apparent that this com-

mitment would be undertaken in a time of greatly depleted income due to war conditions. The gravity of the undertaking led the Trustees into a very full discussion of the entire situation. Part of the discussion was directed to a precise determina-tion of the duties of the Director of Workmen's Com-A further subject was the desirability and possibility of having part of the compensation paid by the State Society and part by one or more component county societies. The length of the contract was also given serious thought. Many regular and special meetings were held through a period of months in an effort to clarify the situation. At one time a contract for a limited period of time, shorter than that suggested in the resolution, and for a lesser consideration, was offered to Dr. Kaliski and he rejected it. He proposed an alternative contract which, it should be stated, would have provided for an appreciably learning to Dr. Rauski and ne rejected it. He proposed an alternative contract an appreciably lesser amount of compensation and a shorter period of time than suggested in the origi-

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[Continued from page 920]

nal resolution. Dr. Kaliski himself and others on his behalf conferred at various times with the Board of Trustees. There came a time when it appeared that there was a strong probability that a meeting of the minds could be brought about between Dr. Kaliski and the Board of Trustees, and that a contract could be agreed upon.

In the fall of 1943 excerpts from the testimony of the Moreland Commission investigating the administration of the Workmen's Compensation Law appeared in the newspapers. Premonitions of the full extent of the scandals disclosed by the Commission were coming to light. At the turn of the year the Board of Trustees read in the daily press that Dr. Kaliski had himself been called as a witness and that he gave lengthy testimony before the Commission. He was being closely questioned concerning his duties and concerning the action of the various county medical societies with relation to disciplinary

proceedings then pending. At the February meeting excerpts of the testimony of Dr. Kaliski were read by the Board of Trustees. It was decided at that time that no contract would be offered to Dr. Kaliski pending the final report of the Moreland Commission. When this report was made to the Governor it became apparent: first, that inaction on the part of the State and county medical societies had been severely criticized; secondly, that Dr. Kaliski's participation in this connection had been criticized; third, that the Commission was proposing specific legislation that would wipe out most of the existing powers and duties enjoyed by the county medical societies with relation to the administration of Workmen's Compensation—specifically, the power to authorize specialists in various categories and the power to discipline physicians for violations of the Law. It is not necessary for the Board of Trustees in this report to allude to details of either the testimony taken by the Moreland Commission or its findings. There is appended to this report as "Appendix A" certain testimony given by Dr. Kaliski on January 24, 1944, as recorded in the fifty-five pages of the official record and as "Appendix B" the printed report of the

Commission. Attention is called to pages 8, 26, 27, 30, and 31 of the report of the Commission. The official record of Dr. Kaliski's testimony at the Moreland Commission hearing on January 24, 1944, is too lengthy to be included in this report. It will be available at the meeting of the House of Delegates. The Moreland Commission report will also be available.

Present at all sessions of the Board of Trustees at which the matter of a contract with a full-time Director was under consideration was the President of your Society. It is important to note that on January 13 the Council met just prior to the Board of Trustees. At this meeting the President stated that the entire matter of the Kaliski contract was still under consideration. He then announced that the introducer of the resolution would address the Council. After that he announced that the Chairman of the Board of Trustees would address the Council. After these addresses he asked if anyone present had any comment and there was no comment. It is the opinion of the Board of Trustees that the resolution of the House of Delegates was passed at a time when the position held by Dr. Kaliski seemed to call for a full-time Director. However, it is now the opinion of the Board of Trustees that it is seriously to be questioned whether following the adoption of the amendments to the Workmen's Compensation Law, which have grown out of the Moreland Commission's report, the need for such full-time position exists at the present time. Certainly it is a matter which needs much further study.

Respectfully submitted,
WILLIAM H. Ross, M.D., Chairman
THOMAS M. BRENNAN, M.D.
GEORGE W. KOSMAK, M.D.
JAMES F. ROONEY, M.D.
EDWARD R. CUNNIFFE, M.D.
Ex officio members:
THOMAS A. McGoldrick, M.D., President

KIRBY DWIGHT, M.D., Treasurer PETER IRVING, M.D., Secretary

April 3, 1944

#### Supplementary Report of the Council-Part VIII: Legislation

To the House of Delegates; Gentlemen:

The Workmen's Compensation bills, introduced by the Committee on Rules, and rushed through both Houses of the Legislature, originate decided changes in the law. For the greater part, they will be approved by the Governor. We are especially concerned with Senate Int. 1667, Int. 1678, and

The radiologists will receive the recognition for which they have been wishing. Our own radiology bill did not reach first base. After June 1, 1944, all fees for x-ray examination, diagnosis, or treatment from patients at the hospital will be turned over to the radiologists, the hospital being allowed to retain not more than 33 per cent of any fee as a legitimate charge for the furnishing of facilities. Bendiner and Schlesinger and such laboratories will be put out of business.

Fee splitting, rebating, or any other form of gratuity or kickback will be penalized as a misdemeanor. Our fee-splitting bill to cover all branches of medicine was sidestepped. The lawyers were decidedly opposed to it. But in Workmen's Compensation it was passed. It is also in the law recently enacted for New York City. The scape-

graces and scalawags of the medical profession will be dealt with. In the future, investigators and attorneys will be furnished. There will be no question of the validity of the subpoena or the taking of an oath. Both those who acknowledge their unchical conduct and the group of whom we are suspicious will be properly dealt with. The law will have real teeth, denied to the doctors, without which proper investigation or enforcement cannot take place, and for the want of which and despite the want of which the medical profession of New York City was excoriated by the Moreland Commissioners and the newspapers.

Are we having a return to Rugged Individualism or is it another invitation to politics? Recently there was discussion about the school reorganization bill—concentration of power in the hands of one man instead of a Board of nine superintendents. Streamlined! Suppose a weak or politically minded superintendent of schools and a delivery into the

hands of the politicians!

Consider the powers of the Industrial Commissioner. The single Medical Practice Committee or the Medical Society or Board or the Medical Ap-

[Continued on page 924]



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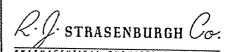


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[Continued from page 9221

peals Unit of the Industrial Council shall be only advisory to the Industrial Commissioner, no longer binding nor conclusive upon him. All medical matters are best handled by the medical profession, who best understand the problems involved. In place of a county medical society in each of the big four-Bronx, New York, Kings, and Queens-such organizations, including the best and wisest minds, the most ethical and conscientious men, we will have one rugged (?) individual. Mr. Corsi has a good reputation. But perhaps later, it may be possible for politicians to seize control. We all remember the terrible mess, shameful and odorous, that existed previous to July 1, 1935, at which time through the advice and influence of some wise doctors many material changes were made in Workmen's Compensation and the responsibility was rightly given to the county medical societies. An incomplete statement of true facts, or an improper interpretation, or an unwillingness to give full credit, was responsible for the maligning of the big four by Bleakly and Stichman, quoting from the report that the doctors "had tolerated the notorious kickback racket and were not yet prepared to meet the responsibility of cleaning their own house. When the new law goes into effect as of June 1, 1944, the magnitude of the job to re-rate over 14,000 physicians will be appreciated, if not before, and a sort of blanket acceptance of the very excellent piece of work already done will take place. A county medical society can so much better than anyone else estimate the qualifications of a physician. In some instances, holders of certificates of the special boards have not been so highly esteemed by the Compensation Board. The little cause for complaint on ratings has originated from the doctor, who felt that he was underrated. If the rating job be accepted and if the county medical society be requested to continue the work of rating physiciansprobably with some remuneration—and the medical society accepts this work as its duty and responsibility, the present odium attached to the medical profession will be shown to be unjustifiable. public will recognize that we have been inpugned and wrongfully condemned.

The arbitration meetings will probably be resumed. If not, they should be. They have been equitably, expeditiously, and successfully carried on. The change in the law will not bring about improvement. Rating and arbitration are supposedly going to be part of the jobs of the Medical Practice Committee of three. Under the rules and procedure of the Medical Appeals Unit of the Industrial Council of the Department of Labor, this same single committee of three for the big four will investigate, hear, and make findings with respect to all charges as to professional and other misconduct of an authorized physician, but they will be aided by the law. Investigators and attorneys will be assigned to assist. There will be no refutation on the part of the Attorney General that the law has no teeth; and no compulsory waiting from July 1, 1935, to May, 1943, for a declaration of an interpretation of the Civil Practice Act, that it is inherent in the Law that the Compensation Boards of the medical societies actually have the power to issue subpoenas and take oaths. This will also prove to be a stupendous piece of work. In these four counties of over one million population each, there are proportionately more miscreants of the fee-splitting and rebating type, and they gang up on the more self-respecting and ethical physicians. In the fifty-eight smaller counties the unworthy disciples

of Aesculapius cannot live and have the support and respect of their fellow practitioners. Concealment is impossible and loneliness would be terrible. Thus we see that improvements will result from the compensation program and that the shocking scandal of the chiselers among the doctors was not deserved and that early changes in the law will necessarily be made to restore powers and responsibilities to the big four county medical societies with the added strength of full legal support.

The chiropractic bill could not this year be rushed through by sympathizers on a "short roll call." During the slow roll call, by which each legislator is recorded as voting for or against a bill or as absent from the Chamber, it was discovered that the chiropractors would lose out and that there was no longer a quorum present and so by a special ruling the roll call was stopped and the Chiropractic bill

recommitted.

We request of the House of Delegates permission that when the Brees Bill is introduced next year to amend it very early, the amendment to be made as we were instructed by the County Societies' Legislative Chairmen in conference in Albany on February 24.

It is refreshing to state that this year the chiropractors made no charges against physicians or the

medical societies.

It is regrettable, however, that some legislators could stand up on the floor and say that they had been approached by the chiropractors to support their bill, but had not been requested by a physician or other person to oppose the bill.

The political boss and the legislator both should

be kept advised.

Experience teaches that a legislative committee of veterans, young or old, can make home runs soon after the Legislature convenes. Hence all legislative committees should be appointed by December 1 and then they will not be in the process of organization on February 1 and therefore lose a lot of time and valuable results.

We have been hearing about the Albany investigation under Mr. Hiram Todd. All registered lobbyists are included in this investigation. Dr. Joseph Lawrence has no "slush funds." He has a keen sense of right and wrong and is guided by

reason and his conscience The "Hearing Officer" did not materialize this year. Our Grievance Committee bill was recommitted and defeated. Neither the Department of Education nor the Grievance Committee requires a "Hearing Officer." The Department of Education, if it wills, can provide lawfully the legal advice that the Grievance Committee so sorely needs. These ten men, without recompense, give freely of their time and strength and they should be rewarded.

The enactment of welfare bills advances inevitably State Medicine.

Those of you who read this report probably also read the bulletins and are acquainted with actions on bills to date.

The Governor, as you see by Bulletin No. 8 issued on March 23, has the usual thirty days to approve or veto bills passed by the two Houses of the Legislature. Within a short period of time you will receive a final summary of all actions on all bills.

The Legislature adjourned on Sunday, March 19, at 5:24 AM.

> WALTER MOTT, M.D. LEO SIMPSON, M.D. JOHN L. BAUER, M.D. Chairman

April 1, 1944



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#### Medical Aspects of the New York State Workmen's Compensation Law

Report of the Committee on Public Health Relations of the New York Academy of Medicine

Review of the Academy's Past Interest in This Subject

Workmen's Compensation is no new interest on the part of the Committee on Public Health Relations. In 1921, at the request of the New York State Industrial Commission, the Committee made a review of the then existing situation and in the report of this study, published in the Medical Record of October 29, 1921, stated that "The New York Workman's Commencation Act though liberal in the Workmen's Compensation Act, though liberal in its provisions, is yet defective in several regards, particularly in its medical aspects. . . . Supervision of the medical and surgical care given is almost entirely nonexistent, even in cases insured with the State Fund.

"Organizations of a purely commercial character for the treatment of industrial injuries have been allowed to develop without supervision as to the character and adequacy of the services rendered.

"Many of the neuroses resulting from accidents have not been given the treatment necessary to restore the sufferers rapidly to productive usefulness.

"The matter of functional re-education and occupational therapy in connection with the treatment of injured workers has not received the attention which the modern development of this work de-The procedure for obtaining the necessary medical testimony from practitioners or hospital authorities needs to be improved and simpli-

"The full-time requirement for service in the medical positions of the Labor Department and the low compensation paid do not make the positions attractive to the highest grade of physicians, which the nature of this work demands."

The conditions as described were slow to improve. In 1931 the then Governor, Franklin D. Roosevelt, appointed a committee with Mr. Howard S. Cullman as chairman to review the medical and hospital problems associated with Workmen's Compensation. In February, 1932, the Committee made its preliminary report, which was published by the Hospital Information and Service Bureau of the United Hospital Fund of New York. Three of the seven medical members of that Committee were active members of the Committee on Public Health Relations of the Academy. These seven members constituted a medical subcommittee of the Governor's Committee charged with the study of the medical aspects of the problem. Dr. Adrian V. S. Lambert, a member of the Executive Committee of the Committee on Public Health Relations, was chairman of the subcommittee. On December 15, 1932, this subcommittee presented its report to Governor Roosevelt at a personal hearing. He was deeply impressed and a week later he wrote as follows: "I am referring the full report of my committee dealing with medical abuses to you for such recommendations and suggestions as you, from a professional standpoint, may deem wise and proper."

The Committee on Public Health Relations

recommended to the Council of the Academy that a further study be made, as requested by the Governor, and that it should be made in cooperation with the State Medical Society in order to insure una-

nimity of medical support for any legislative or other measures that might be proposed. Acting favorably upon this suggestion, the new Governor, Herbert H. Lehman, wrote to the President of the Academy under the date of February 2, 1933, that "in accordance with the suggestion contained in your letter of January 30, 1933, I have decided to appoint a committee of ten doctors, five representatives of the Academy and five representatives of the Medical Society." Drs. Eugene H. Pool and George Baehr, both representing the Academy, were made, respectively, chairman and secretary of were made, respectively, chairman and secretary of the new joint medical committee of ten. The report of that Committee was submitted to the Governor with the approval of the Council of the Academy in January, 1934. In his letter of February 13, 1934, to the Executive Secretary of the Committee on Public Health Relations of the Academy, Governor Lehman stated that he had directed the Commissioner of Labor Mr. Elmer F. rected the Commissioner of Labor, Mr. Elmer F. Andrews, to cooperate with Drs. Pool and Baehr in the drafting of suitable legislation to amend the Workmen's Compensation Act in accordance with the recommendations of this report. This was done, and the bill (O'Brien-Kantowski) which was introduced into the Legislature in March, 1934, providing, among other things, for the free choice of physicians, had the approval and support of the Academy of Medicine. It was passed in 1935. This constitutes the law which has been in operation since that time.

While this amended law proved to be a great improvement over its predecessor, many faults both in its provisions and its administration developed. Taking cognizance of this, the Committee on Public Health Relations appointed in 1940 a special subcommittee to look into the matter, especially the question of medical testimony offered to the referees and the disposition of cases with conflicting testi-After a review of the situation the Committee recommended to the then Industrial Commissioner, Miss Frieda Miller, the appointment of impartial boards of experts similar to the Silicosis Board provided for in the existing law. In her annual budgets the Commissioner made requests for boards of this character, but the budgetary authorities refused to great the requisite funds. authorities refused to grant the requisite funds.

supported Committee "blanket" coverage of occupational diseases which in 1935 became a part of the law, and repeatedly urged improvements in the layout and equipment of the Medical Division of the Labor Department. As in the case of boards of experts, the requests of the Commissioner for improvements in the Medical Division were refused by the budget authorities. Apparently, the development of unemployment insurance, old-age pensions, and other phases of the so-called Social Security program has relegated Workmen's Compensation to a minor place in the public interest in spite of the fact that it is of such public interest, in spite of the fact that it is of such vital importance to hundreds of thousands of individuals and to the national productive effort.

Only the recent violent and open criticism that has centered about the unethical practices which

[Continued on page 928]



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[Continued from page 926]

have grown up, particularly rebates, kickbacks, padded bills, unnecessarily prolonged treatment, and the like, has been able to arouse public opinion.

#### The Present Study: Its Origin and General Purpose

On behalf of the Governor and of the Commission for Investigation of Workmen's Compensation Law Administration (the Moreland Act Commission), Mr. Herman T. Stichman requested the Academy's advice with regard to the inadequacies of the present administrative system. The Academy, shocked by the disclosures of the investigation and deeply interested, both on its own behalf and on that of the good name of the medical profession, accepted the invitation to study the situation through a subcommittee of the Committee on Public Health Rela-The object of this study was not only to suggest methods for the control of unethical practices but also, and perhaps even more important, to propose such changes in the law or in procedure as would make medical care for the injured workmen as effective as medicine and surgery can provide to the end of returning such workmen to normal productive capacity as quickly and completely as possible.

Without condoning in the slightest way any of the unethical practices revealed by the Moreland Act Commission and which the New York Academy of Medicine always has emphatically condemned, it is only fair to state that in the judgment of the Committee the very severe censure of the county medical societies is not fully justified, because of certain inadequacies in the present law which hamper investigation of the alleged irregularities on the part of individual practitioners and also because of the lack of staff and established method of procedure by which complaints or charges of such irregularities and the complaints of charges of such irregularities and the complaints of charges of such irregularities and the complaints of th

larities can be brought before them.

Our inquiries have brought forth instances in which, in spite of faithful purpose and readiness to act, the compensation committees of the county medical societies have been frustrated in their desire to improve the situation in regard to these practices because of the previously mentioned handicaps.

because of the previously mentioned handicaps. It is for this reason that we advocate the retention of the function of holding hearings and making recommendations for punishment in the hands of the county medical societies, provided definite changes in the method of the investigation and initiation of charges of unethical practices are made. Should our recommendations be enacted into law and competently administered, we believe that the county societies will not fail in their responsibility.

We are fully aware of the fact that the widespread system of fee-splitting and accepting rebates is by no means confined to medical practice under Workmen's Compensation, or indeed solely to the medical profession, as this reprehensible practice has become all too common in many fields of endeavor. We have, therefore, made recommendations that would have a wider application than to Workmen's Com-

pensation alone.

Human nature being what it is, if access to or claims upon large public or quasi-public funds are unsupervised, some form of graft is pretty certain to develop. Eagerness to share in the \$18,000,000 now being expended every year in New York State for medical fees under Workmen's Compensation is a case in point. When we contemplate the possibilities contained in the projected plans for extended social security funds, it is not difficult to foresee

similar problems arising on a much larger scale and consequently it is possible to anticipate that a plan of regular supervision of medical services and control of the resulting medical expenses such as advocated in this report may lend itself to wider application than to Workmen's Compensation alone.

In dealing with fee-splitting, the Committee recommends an amendment to the Education Law which would make this offense punishable by revocation of license and applicable not only to Workmen's Compensation but to all medical practice. The Committee also recommends an amendment to the Penal Law whereby fee-splitting would

become a misdemeanor.

The recommendations of this report have been developed in the course of conferences with representatives of the State Department of Labor, of the State and county medical societies, of the insurance carriers, of organized labor, and the Counsel for the Commission for Investigation of Workmen's Compensation Administration. The report is the result of numerous discussions and a careful study of the administration of the law. If incorporated into the law and the administrative procedure, the recommendations offered here ought to make impossible some of the gross abuses which have developed, although it is well realized that it is impossible to insure ethical behavior by legal rescript and that any law will be respected only when it reflects and represents the general sentiments of the community.

In the problem of fee-splitting, education of the public both within and without the medical profession appears to be indicated if this practice is to

be eradicated.

The following is a statement of the recommendations which seem reasonable and enforceable, together with a terse presentation of the reasons for them.

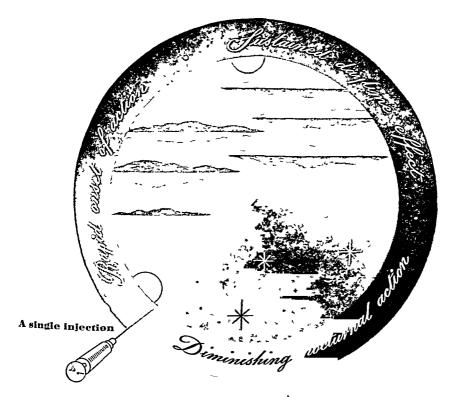
#### Recommendations

- I. Survey of Medical Procedures.—Many criticisms have been made of the present system, to the effect that treatment often has been: (1) inadequate, (2) unnecessary, (3) delayed, and (4) unduly prolonged. Unfortunately, no precise data are available to appraise the situation. The Committee therefore recommends:
  - That the Department of Labor make efforts to secure a state appropriation for a study of an adequate sample number of "closed" cases. This study is to deal with the medical aspects of Workmen's Compensation, such as the causes of the existing delays in securing treatment, the methods pursued by the various groups concerned with regard to the selection of physician, the kind and course of treatment, the decisions as to operation and after-care, the stoppages in treatment, the kind of injuries treated, and the methods pursued in the treatment of similar injuries, the time necessary for treatments of similar character, a comparison between the adequacy of treatment provided by the self-insurer as against the ordinary carrier, the comparison of adequacy of results by individual physicians as against medical bureaus, and many other points of similarly vital character.

II. Certification to Render Medical Care.—Under the present law physicians are authorized to render medical care under Workmen's Compensation by the Industrial Commissioner upon the recommenda-

[Continued on page 930]

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[Continued from page 928]

tion of the county medical societies. The Committee recommends:

2. That the responsibility for certifying physicians for Workmen's Compensation practice remain in the hands of the Industrial Commissioner and the county medical societies, as provided for in the present law, and that efforts be made to bring about improvements in the qualification of specialists and their certification.

3. That a physician who has been refused endorsement by the county society have the right to appeal to the Industrial Commissioner and the courts but not, as at present, to the Industrial Council, whose functions and composition should

be altered as provided in this article.

Compensation Medical Bureaus.-Under the present law compensation medical bureaus and laboratories are licensed by the Industrial Commissioner upon the recommendation of the county medical societies, but there is no definition of a Compensation Medical Bureau in the law, and the law provides no penalty for the operation of an unlicensed bureau. Inasmuch as these bureaus, unless they are operated by commercial concerns for their employees, constitute the practice of medicine on a business basis, the Committee recommends:

That the law adequately define Compensa-

tion Medical Bureaus.

That Compensation Medical Bureaus other than those operated by an employer for his employees be prohibited.

That the ownership or operation of any un-

licensed bureau be made a misdemeanor.

Commercial Laboratories.—Because of the well-known and recently well-aired abuses of commercial laboratories, the Committee recommends:

- That the law require that in order to qualify for a license under Workmen's Compensation a laboratory must be owned, operated, and the work supervised by a physician duly licensed to practice medicine in the State of New York and who has been qualified and certified under the existing laws with regard to the directorship of clinical laboratories
- V. Revocation of Authorization to Practice.—One of the most publicized evils of the present system is the way in which unethical conduct on the part of physicians, insurance adjusters, employees of the State Insurance Fund, and others has been allowed to go unchecked. This is partly due to the lack of provision for effective implementation of that section of the Workmen's Compensation Law (13-d) which prohibits the division or assignment of fees and other unethical practices.

While the county medical societies have been empowered to try physicians on charges of misconduct, no one is specifically designated to initiate charges, and little provision has been made for their The Committee therefore recominvestigation.

mends:

That the State Labor Department be made responsible for initiating charges and investigating cases of unethical conduct among physicians rendering treatment under Workmen's Compensation, but opportunity should also be given to other interested parties to file charges.

That provision be made in the budget of the Labor Department for a proper investigatory

staff to operate on a statewide basis.

That the county societies retain the power to try physicians so charged.

That to make possible the carrying out of this responsibility the county medical societies be specifically granted powers to subpoena witnesses and administer oaths, and be provided with legal assistance by the State.

12. That if the county societies do not take action the Industrial Commissioner shall exercise his right to make his own investigation and try cases independently and that to this end the law be amended, giving the Industrial Commissioner the right to hold hearings as well as to make investigations.

That it be made mandatory that any physician found guilty of violating the provisions of the Workmen's Compensation Law be removed from the list of those authorized to render treat-

ment under Workmen's Compensation.

Fee-Splitting and Rebates.—Since fee-splitting and acceptance of rebates are not limited to Workmen's Compensation cases, it is desirable that the Education Law be amended to make these practices on the part of physicians licensed to practice medicine in the State of New York cause for disciplinary action by the Board of Regents when legally and justly proved. It is therefore recommended:

That an appropriate clause be added to Section 1264-2 of the Education Law, which specifies offenses for which licenses may be re-

voked or suspended.

15. That, in addition, an amendment to the Penal Law, making such practices a misdemeanor,

be enacted.

Arbitration Procedures.—Disputed bills are subject to arbitration by boards of four physicians, two selected by the carriers and two by the county society of the particular jurisdiction. The proceedings are held in camera with no record of any kind. Since the parties concerned agree to arbitrate, there is no appeal from the decisions made. The ma-chinery thus provided has not worked out satis-factorily and as a result few cases come to arbitra-Physicians prefer to make outside settlements, which is a bad practice and is contrary to the spirit of the law. Moreover, carriers frequently notify physicians to stop treatment because the compensability of the case is in question. In these instances the physician runs the risk of not being paid for services rendered. Many competent physicians quit under the circumstances. The claimant is thereby driven to the necessity of finding a physician who will take his case on the chance of having it paid for. Those who are in the compensation "business" and who run several bureaus and in that way take care of thousands of cases in a year can afford to do it; losing payment in some cases does not matter much. Indirectly, this is a way of "lifting" cases, To obviate the evils of the present system the Committee recommends:

That the physician's bill should be rendered in duplicate, one copy being submitted to the Labor Department and the other to the carrier. If the bill is protested by the carrier no outside settlement between the physician and the carrier should be allowed; the decision must be made by a medical appeal board and should be final.

That for the purpose of making up the medical appeal boards there be five regional panels in the State, composed of physicians who do not engage in Workmen's Compensation work

[Continued on page 932]



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[Continued from page 930]

These panels should be appointed annually by the Industrial Commissioner from lists submitted by the medical societies and by the insurance carriers. Nominations by the medical societies should be subject to the approval of the carriers, and vice versa, so that the final list should consist of a group of physicians agreeable to each. such a method of selection boards of three physicians would be sufficient for any particular case. The selection of particular physicians should be left to the Industrial Commissioner, who should provide each appeal board with a stenographer, so that a verbatim record of the proceedings and of the decisions reached may be available. Members of the appeal boards should receive remuneration on a per diem basis.

VIII. Provision for Early and Uninterrupted Treatment and for Checks on Treatment.—The present law provides for the insurance companies to check on the adequacy or necessity of treatment by allowing them to have their own medical staff examine the patient. Frequently such examination is delayed for many weeks after treatment has been instituted. In order to provide for a more adequate and expeditious check on treatment, the Committee

recommends:

18. That in order to controvert compensability of claim the carrier must notify the claimant's physician of its intention to controvert within ten days from its receipt of the C 104 Form.

19. That if the carrier controverts for medical reasons, it must submit to the referee and to the claimant's physician a report of a medical examination made on its behalf indicating the medical grounds on which the case is controverted.

That in order to protest the necessity or character, frequency, and adequacy of treatment, the carrier must have an examination of the claimant made within five days of the receipt of the C 4 Form and must submit to the claimant's physician a report of this examination five days after it has been completed. In exceptional cases, these time limits may be extended by the Industrial Commissioner. If, following this examination, the claimant's and carrier's physicians disagree, the patient must be referred immediately to the Labor Department for medical examination and opinion.

21. That in prolonged cases, the carrier should follow the above procedure upon receipt of each

C 14 Form.

IX. Medical Division of the Department of Labor. The adoption of these recommendations would impose additional work on the already overburdened staff of the Medical Division of the Department of The Committee therefore recommends: Labor.

That the staff of the Medical Division be

materially increased.

That the salaries of this staff be made more in line with the responsibilities attached to the positions and with provision for a sliding scale of salaries based upon duration of satisfactory serv-

ice.

That the staff be prohibited from engaging in private practice between the hours of 9:00 A.M. and 5:00 P.M. and from workmen's compensation practice at any time: However, all members of the staff should be required to participate in active medical work in hospitals, and to that end provision should be made for two halfdays a week for participation in in- or outpatient work.

That the medical quarters of the Department of Labor be enlarged, properly lighted and arranged, and adequately equipped and staffed to suit the requirements of this very important office. Provision should be made for an adequate x-ray department with proper equipment and staff.

X. Impartial Medical Examinations.—It has been charged by some that the presence of the carrier's physician at the examinations in the Labor Department at times influences the decision of the staff physician. It is therefore recommended:

That both the carrier's and the claimant's physician be barred from the examination by the Labor Department staff and that the staff physician rendering the examination should have no knowledge of the carrier involved in the case.

The present law prvoides for the adjudication of difficult medical cases by a "specially qualified physician" selected from a panel, the membership of which is designated by the county medical society. It has been stated that these physicians are not always impartial, that they are not fully acquainted with the specific problems of compensation medicine, and that they are infrequently called upon because of the expense involved. On the other hand, there has been no complaint against the work of the Silicosis Board, which consists of three permanent members appointed by the Industrial Commissioner on a part-time basis. It is therefore recommended:

That similar boards be established in other 27. specialties for the adjudication of difficult cases which cannot be settled in the State Labor Department and for appeals from the decisions rendered in the Labor Department. These boards should pass on questions of causal rela-

tionship, extent of disability, and treatment.

28. That at the present time such additional boards be established in (a) neurology, (b) orthopaedics and general surgery, and (c) internal medicine. The survey above recommended would probably indicate in what further enoughly indicates in the present time such additional boards be established in (a) neurology, (b) orthopaedics and general surgery, and (c) internal medicine. probably indicate in what further specialties such boards should be established in the future.

That cases be referred to these boards by the Medical Division of the Labor Department or on request of a referee, the claimant's physi-

cian, or the carrier's physician.

30. That these boards should be appointed by the Industrial Commissioner from among physicians of recognized high character and of high professional repute. These physicians should be barred from otherwise practicing under the Workmen's Compensation Law.

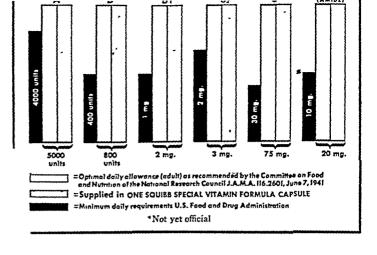
XI. Industrial Council.—Under the law as amended in 1935 the Industrial Council consists of fifteen members appointed by the Governor, five of whom represent the interests of employee, five the interest of employer, and five the medical profession. Although the law states that the function of the Industrial Council is to advise the Industrial Commissioner, it vests it with investigatorial, administrative, and judicial duties as well as those of an advisory nature. It is recommended:

31. That these nonadvisory duties which are described in the Labor Law, Section 10-4 (f), (g), (h), and (i), should be transferred from the Industrial Council to the Industrial Commissioner, where they rightfully belong.

The other specified duties of the Industrial Coun-

[Continued on page 934]

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<sup>&</sup>lt;sup>1</sup> National Research Council, Reprint and Circular Series No. 115, January 1943.

[Continued from page 932]

cil as described in the law pertain largely to medical matters, and in the opinion of the Committee should be carried out by a group composed entirely of physicians rather than by a mixed group of physicians and laymen. It is our understanding that plans are being drafted to decrease the membership of the Industrial Council to nine, with three representatives for employers, three for labor, and three for the medical profession. The Committee therefore recommends:

That the medical members of the Industrial Council serve also as an independent medical board to advise the Industrial Council on all matters pertaining to the medical phases of the administration of the Workmen's Compensation Law. The members of this medical advisory board would be appointed by the Governor from among men of high professional repute and character and who enjoy the confidence of the various accredited medical groups in the state. They

should not engage in workmen's compensation practice. For the performance of their duties on the medical advisory board they should be entitled to per diem allowance.

XII. Annual Reviews.—In order to assure a rational evolution of the administration of the Workmen's Compensation Law and to obviate the need of more or less explosive inquiries every ten years or so, it is suggested:

That in so far as the medical aspects of the Workmen's Compensation Law are concerned, the Governor appoint each year a committee of physicians to review the situation and to suggest such studies or changes as might be indicated in order that weaknesses of the Law or of its administration might be detected and corrected as soon as they become discernible and before they attain undue proportions.

January 24, 1944

#### CHEMIST SEES POSTWAR FOOD USE FOR DRIED BANANAS

Dehydration of fruit now being wasted in the great banana-growing areas of Middle America may offer a source of additional food to help meet the world's postwar food needs,

This is suggested by Donald F. Othmer of the Polytechnic Institute, Brooklyn, New York, a chemical engineer and authority on acetic acids, in a report to the Inter-American Development Commission, Washington. His report is based on studies of banana utilization made in Honduras last year.

Dehydration of bananas for export already is being done in Honduras and Brazil. However, Mr. Othmer believes possibilities for utilization of wasted

fruit through drying are far from exhausted.

Preservation of bananas can be accomplished simply by removal of about 75 per cent of the water

content, he explains, and continues:

"The drying operation may be conducted on the whole fruit after peeling. Or the bananas may be pulped or emulsified before drying in a spray dryer. These operations give a fine powder.

"A peculiarity of the banana is that in the green state it has a high carbohydrate content as starch. This starch is self-converted to sugar during the ripening process. Thus either a high starch-containing food or a high sugar-containing food may be obtained at will.

Green bananas are thus used to make a banana powder or flour of starch content similar to wheat flour for bread-making. Ripe bananas are used to give a special powder of high sugar content for cakes

pastries, milk drinks, etc."
He reported that in Mexico, particularly the provinces of Tabasco and Chiopas, large amounts of

bananas are being wasted.

Dehydration of bananas, he pointed out, permits preservation and storage of the fruit during periods when banana stems cannot be shipped. Thus the dried material can be accumulated until shipping and increased demand for food make use of the dehydrated fruit desirable.—Release from the Office of the Coordinator of Inter-American Affairs



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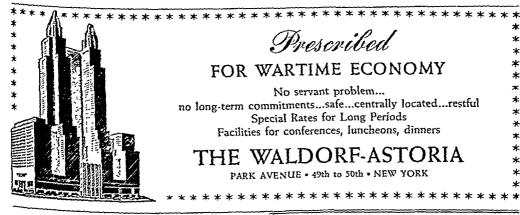


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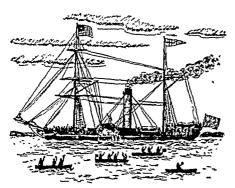
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#### ART AS AN ADJUVANT IN ILLNESS

Mr. Adrian Hill, RB.A., a British artist, describ a successful experiment conducted by himself at famous sanitorium in England. This story of an e periment in occupational therapy, as originally pu lished in *The Studio* has been reprinted in part in t March 1944 issue of *The Canadian Hospital* (page 60).

The author states that "A desire for self expre sion is inherent in us all, and to encourage this un at a time of physical inaction might very well n awaken a latent talent for drawing and painting."

With this thought in mind, Hill obtained permis sion to put his theory into operation at the sanito rium, first in a ward for service casualties and after wards in more permanent departments for civilian patients.

He found his audience eager to listen to any scheme whereby the tedium of illness might be alleviated. From purely curiosity the patients soon developed a desire to grasp the opportunity of indulging in some form of self-expression. The benefits grew out of happy occupation in the job rather than from the purely aesthetic value of any finished product.

The class varied in size from week to week according to the state of health of the individual. Half of the regular "students" were bedders who were visited in turn and their work and problems discussed individually.

"With regard to the actual method of instruction," comments Mr. Hill, "I have always to remember that much depends on the asthenic mental condition of the patient. In some cases emasculation prevents them physically from carrying out their ideas, and when this is the case we talk instead about some interesting aspect of picture-making or look through some reproductions of Old Masters, so that the cultural interest is retained until such a time as they feel strong enough to take up their pencil and brush again."

The benefit of art over other therapy classes, suggests the author, is that the germs of art appreciation plus a certain working knowledge of drawing and painting will continue to bear fruit throughout the years of normal life, while the making of useful and fancy goods will be relinquished most likely forever when the patient is fit enough to leave the institution.

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Hepatinic is supplied in bottles of one pint and one gallon.

\*Gottlieb, R.: Canad M.A J. 47, 456 Nov 1912



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worker suffers recurring attacks, he should be transferred to a job where he does not come in contact with irritant.

Protective clothing made from impermeable materials is preferred because it cannot become saturated with irritants. This clothing should be cleaned daily.

Protective ointments are helpful when such clothing is not practical or available. There are two types of protective applications—the water soluble (invisible glove) type, and the innocuous fat type—the first to repel oils and petroleum solvents, the second to prevent them from entering the pores and to buffer their action on the skin.

The chief causes of dermatitis are cutting oils, used in the manufacture of motors, tanks, shell casings, projectiles, and airplanes wherever cutting and turning metals is performed. These oils are the soluble and the insoluble types. The soluble rarely cause dermatitis despite the fact that they usually contain bacteria.

The insoluble are usually sterile, yet they are the principal causes of cutting oil boils, and dermatitis. The metal slivers in them may wound the skin; the sulphur, chlorine, and inhibitors they contain may imiate the skin; the petroleum oil itself may plug the pores, causing comedones which may form boils if infected by bacteria from dirty clothing or unwashed skin.

#### THIS IS NEW

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#### ON OCCUPATIONAL SKIN DISEASES

As reported in the National Safety News (March 1944), skin ailments are the most common of occupational diseases.

In an average pre-war year their cost to the nation was estimated at considerably more than 100,000,000 dollars a year in medical care and compensation alone. Today the frequency of such diseases and their total cost are much greater.

New industries, particularly, those concerned with the war effort, have contributed many new causative agents and a greatly increased exposure. However, experience has shown that it is not necessary to come in contact with highly toxic or irritating materials to cause dermatitis.

While these high-powered irritants are serious offenders, lack of cleanliness has been established as a factor in a large portion of dermatitis cases. Lack of lavatory facilities and proper cleansing agents, dirty work clothes, and careless washing habits all contribute to personal uncleanliness.

Since the cause is a factor in both the treatment of dermatitis and in prevention of recurrences, every effort should be made to determine the causative agent. In doubtful cases the patch test is often employed.

Once the ailment has been diagnosed as occupational dermatitis, treatment should be directed toward protecting the skin from further injury. As a general principle, only mild medicaments are ad-

vised in acute cases.

Many mild cases are permitted to work while under treatment. They often develop an immunity after recovery. Severe cases should be removed from irritant while under treatment. When a

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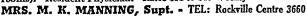
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#### MEDICAL HISTORY OF WAR BEING COMPILED

Members of the Museum and Medical Arts Service of the Army Medical Corps, in the European Theater of Operations, are compiling a medical history of the war, recording in photographs and drawings the new surgical technique and unusual treatment of disease.

A simplified method of applying plaster casts in the field has been photographed by Sergeant Joseph G. Nalepovic of Silver Spring, Maryland. A series of twelve pictures was made in which the various

stages of applying the plaster is demonstrated.
Sergeant Clifton B. Potter, Beverly, Massachusetts, has contributed a drawing of the rare eye disease called coloboma, which is an unnatural growth in the interior of the eyeball. "I climbed into a sterile gown and stood by the surgeon and looked over his shoulder," explained the Sergeant. didn't actually draw in the operating room, but took quick mental notes and transposed them later into sketches. These sketches were enlarged into pictures of each step in the operation."

Captain Ralph D. Reed, Bethesda, Maryland, formerly a bacteriologist with the United States Public Health Service, with the aid of three photographers and two medical artists, has set up an "art gallery" and dark room. He and his staff take motion pictures of any operation or treatment which are valuable for future study by Army doctors.

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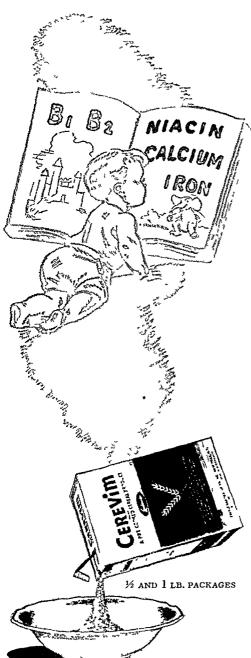
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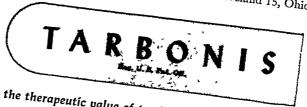
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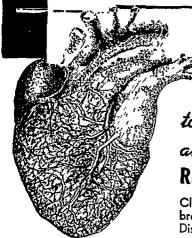
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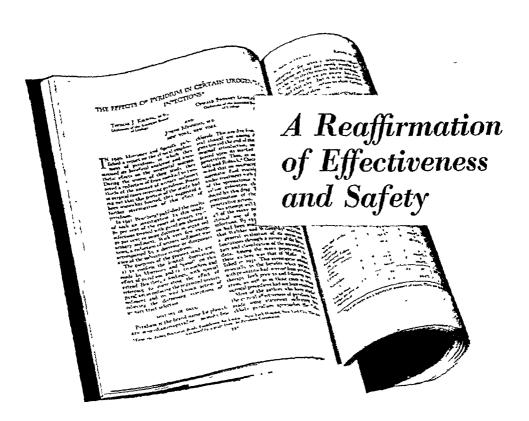
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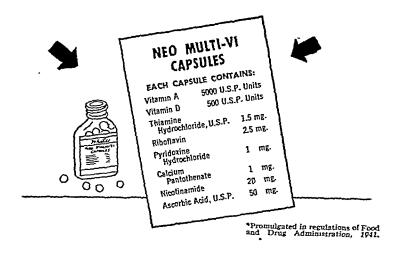
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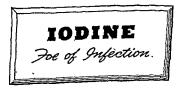
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Merck & Co., inc.  Wm. S. Merrell Company  The Michell Sanatorium  Philip Morris & Co., Inc.  National Discount & Audit Co.  Nestle's Milk Products, Inc.  Numotizine, Inc.  Nutrition Research Laboratories.  Ortho Products, Inc.	Cover 959 1045 1052 1041 1053 963 958 64-965 951
Merck & Co., Inc.  Wm. S. Merrell Company  The Michell Sanatorium  Philip Morris & Co., Inc.  National Discount & Audit Co.  Nestle's Milk Products, Inc.  Numotizine, Inc.  Nutrition Research Laboratories  Ortho Products, Inc.  Paine Hall	Cover 959 1045 1052 1041 1053 963 958 34–965
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# Nestlé's Milk Products world's first choice for babies!



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The extensive bibliography on Ertron, covering a nine-year period, has repeatedly demonstrated the value of *Ertronization* in arthritic therapy.

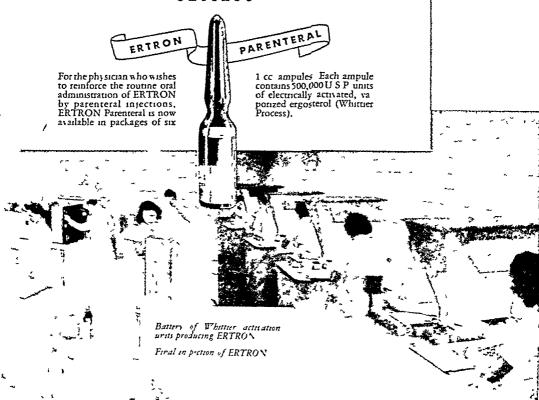
# **ERTRON**

ERTRON alone—and no other product—contains electrically activated, vaporized ergosterol (Whittier Process).

The exclusive Whittier Process assures high potency and absence of deleterious by-products. Careful laboratory control and assay guarantee the safety and effectiveness of ERTRON.

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With the coming of longer days and "outdoor weather," the growing child steps up his or her muscular activities.

Correspondingly comes the need for more calories, expressed in an insatiable "hollow-leg" appetite.



Why not let the youngsters satisfy their between-meals' craving for sweets and extraenergy-food by serving that famous milk drink

#### HORLICK'S

Prepared with milk or with water, Horlick's combines palate appeal with well - balanced nourishment. Moreover, Horlick's is so readily digested that it does not tend to interfere with the next full meal.

Recommend
HORLICK'S
(Powder or Tablets)

# HORLICK'S FORTIFIED

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The Complete Malted Milk . . . Not Just a Flavoring for Milk

# HORLICK'S

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In the correction of the anemic state Livitamin not only leads to rapid hemoglobin regeneration, but also aids in the eradication of the usually associated conditions. Its iron is highly available and promptly utilized; its contained liver concentrate presents the fractions found valuable in the anemias; its rich

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Each fluidounce of Livitamin presents: Fresh Liver (as concentrate) \_ \_ 1.5 oz. Thiamine Hydrochloride

(B<sub>1</sub>) (3 mg.) 1000 U.S.P. Units Riboflavin (B<sub>2</sub> or G) 1.00 mg. Nicotinamide (Niacin Amide) 25.0 mg. Pyridoxine Hydrochloride

(B<sub>6</sub>)

Pantothenic Acid \_\_\_\_\_\_\_ 2.315 mg.

Filtrate Factor \_\_\_\_\_\_ 20 J. L. Units

Iron and Manganese Peptonized \_ 30 gr.

In doses of 2 to 4 teaspoonfuls t. i. d.

Livitamin rapidly corrects hemoglobin

deficiency. Available in 8-oz bottles.

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With the coming of longer days and "outdoor weather," the growing child steps up his or her muscular activities.

Correspondingly comes the need for more calories, expressed in an insatiable "hollow-leg" appetite.



Why not let the youngsters satisfy their between-meals' craving for sweets and extraenergy-food by serving that famous milk drink

### HORLICK'S

Prepared with milk or with water, Horlick's combines palate appeal with well - balanced nourishment. Moreover, Horlick's is so readily digested that it does not tend to interfere with the next full meal.

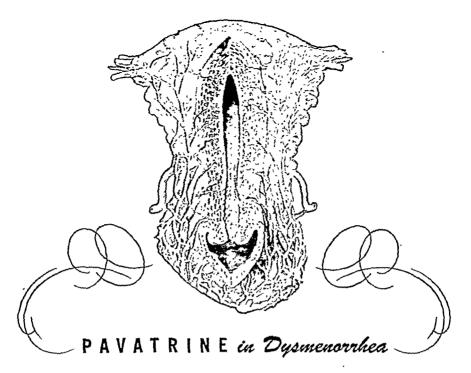
Recommend
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# HORLICK'S FORTIFIED

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The Complete Malted Milk . . Not Just a Flavoring for Milk

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The potent uterine spasmolytic action of Pavatrine is such that its ability to relieve dysmenorrhea has been described as "morphine-like."

Yet, Pavatrine is non-narcotic, non-habit forming, devoid of narcotic manifestations.

Pavatrine is both neurotropic and musculotropic in action, thereby combining the clinical advantages of both atropine and papaverine, without appreciably displaying such side effects as vasomotor relaxation, mydriasis or depression of secretions.

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Supplied in bottles of 20, 100 and 1000 s.c. tablets, each containing 2 gr. (125 mg.)



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Each Spencer Breast Support for prenatal wear, like all Spencer Supports, is individually designed for the one patient who is to wear it, to lift and hold breasts in natural, healthful position, without compression.

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GUARDS AGAINST CAKING AND ABSCESSING

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11

Otitis Media

Requires Analgesia

Bacteriostasis, and

Dehydration of the Tissues.

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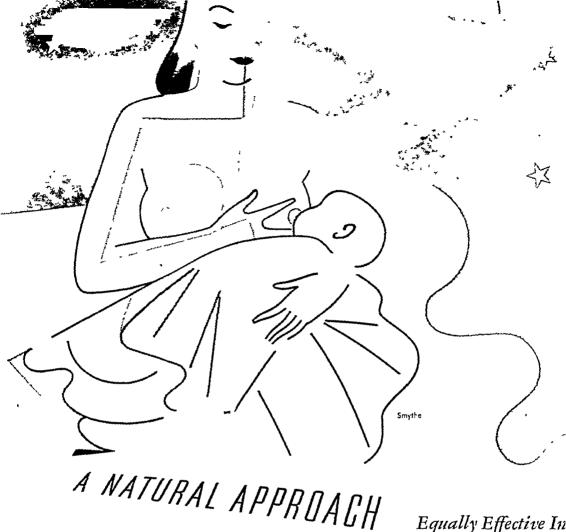
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- Exudative and chronic eczema. — Children's eczema.
- Forms a non-peeling coat of tar.
- Avoids staining of linen.
- Removable with "Tersus" and water.
- No untoward irritation.

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☆ ZymenoL ... is a natural approach to the two basic problems of Gastro-Intestinal Dysfunction:

Assures Normal Intestinal Content

through Brewers Yeast Enzymatic Action \*

Restores Normal Intestinal Motility ... with Complete Natural Vitamin B Complex \*

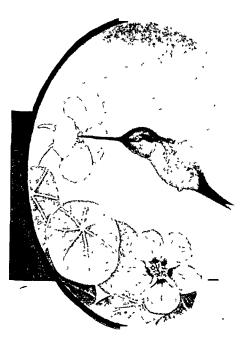
Sugar Free

This two fold natural therapy restores normal bowel function without catharsis, artificial bulkage or large doses of mineral oil. Cannot affect vitamin absorption, avoids leakage.

Teaspoon Dosage Economical Write For FREE Clinical Size



\*ZymenoL Contains Pure Aqueous Brewers Yeast (no ln e cells)



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Aggressive little atom of American bird-life, the beautiful Humming-bird flies so fast that the eye can scarcely follow. It operates its wings with such incredible power and speed that it is enabled to stand still—literally poised in air—as it gleans the nectar of flowers.

Similarly, the ability to remain "poised" over painful areas is attributed to small quantities of EUCUPIN, the local anesthetic-analgesic agent. Like the Humming-bird, Eucupin possesses a remarkable kind of *staying power*—the kind that controls pain for longer periods than any other agent, the effect lasting for hours and even for days.

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Brand of Isoamylhydrocupreine
Non habit-forming . . . Reduces need for narcotics



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The local anesthetic-analgesic with "STAYING POWER"

# SULFADIAZINE



WHERE the infecting organisms in a genito-urinary infection are Escherichia coli, Aerobacter aerogenes, Shigella dispar, Streptococcus hemolyticus, Staphylococcus aureus, or Staphylococcus albus, the oral administration of Sulfadiazine is indicated.

All sulfonamides are relatively ineffective against enterococci.

The Office of the Surgeon General, U. S. Army\*, has recommended Sulfadiazine as the drug of choice for the specific treatment of infections caused by the Escherichia coli-typhoid-paratyphoid group.

Literature will be sent upon request.

#### PACKAGES

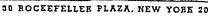
Sulfadiazine Tablets for Oral Use Bottles of 50, 100, and 1,000 tablets, 0.5 Gm. (7.7 grains) each.

Sodium Sulfadiazine Solution Parenteral 25% W/V
Sets of 6, 25 and 100 ampuls
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\*War Medicine 2:466 (May) 1942,









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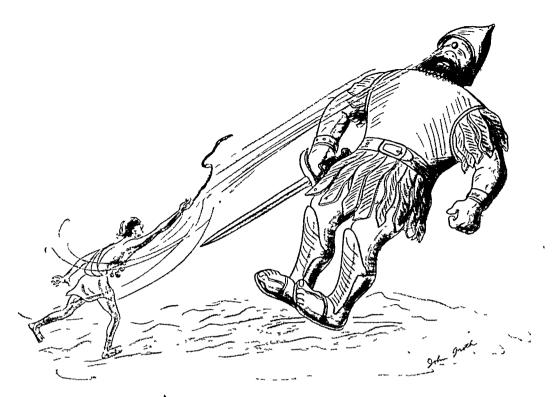
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EMULSION OF MINERAL OIL WITH PHENOLPHTHALEIN AND AN AGAR GEL



# NEW YORK STATE JOURNAL OF MEDICINE

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### Editorial

#### What Others Think, III

Under date of March 10, 1944, the Council on Medical Service and Public Relations of the A.M.A. sent out in bulletin form excerpts from various news sources relating to activities and trends in relation to medical affairs, medical legislation, and plans for rendering medical service. As an expression of lay opinion on trends in the public aspects of medicine the material in the bulletins should be highly useful to the medical profession as a means of relating its thinking to that of informed lay people who are devoting much sincere attention to the future of medical service in this country.

It would appear that few people here desire to follow slavishly patterns of public medicine imported from Europe, patterns originally laid down for political reasons and in the interest of the attainment of political objectives rather than the advancement of scientific medical practice. This has never been and is not now a nation of copyists.

In many aspects of public medicine we may lack experience, since the intensive industrialization of the people is a comparatively recent development here compared to what has been the practice in those European nations for many years, geared primarily to production for war. But there seems to be little doubt that as we progress we shall insist on doing things our own way to suit the needs of our own temperament and in conformity with our native ideas and standards of practice.

The following excerpts from the Council's bulletin reflect current thought about recent

proposals of various kinds having to do with medical affairs.

The two following items appeared in "Views on Many Topics" of the Chicago Daily News in February, 1944:

"Recent editorials regarding the proposed expansion of the Social Security Act neglect to mention the greatest objections to the plan, viz.: compulsory contributions by arbitrary deductions from pay checks and unfair discrimination against unmarried workers and their dependents in benefits paid. Advocates of so-called 'Social Security' always avoid the question of compulsion. In a recent letter in this column, H. L. McCarthy of the Social Security Board attempted a defense of the Act by referring to premiums for fire insurance. Fire insurance is not compulsory. If an owner wishes to carry his own fire insurance by providing a reserve for losses, as many do, he may do so. The same freedom should be given all workers in old age pensions, hospitalization, etc. The Act should be amended, abolishing compulsory contributions, allowing a worker to make his own decision.

"Let those who wish to do so apply for the insurance, but in the name of liberty and justice, do not force contributions from workers who consider as I do, the Act to be a dishonest racket.—F. R., Chicago."

The following editorial from the Charleston News and Courier of Charleston, South Carolina, was quoted in the Augusta, Georgia, Chronicle on February 19, 1944:

"Being of modest disposition and loath to blow our own horn, we would not have presumed to prescribe for the eminent medical profession, but since Dr. Wilburt C. Davison, dean of the Duke University School of Medicine, has suggested that doctors need advertising, we feel free to put in our two cents' worth.

"Doctors have outlawed individual advertising, probably with good reason, but that is no cause for avoiding institutional advertising, a form that has proved its worth in many a field. Dr. Davison said,



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communities had, for the most part, been unwilling to cooperate in local chamber of commerce functions, or were completely disinterested in their local projects.

"It was clearly stated-and I have heard it repeated a number of times-that the medical profession now seeks help on something of a very serious nature from these very people for whom the profession has had little or no interest or regard. . . .

"You will agree, I am sure, that doctors should take an active interest in the civic and health programs of these chambers. Therefore, I should like to be bold enough, in the interest of harmony and out of regard for the local chamber of commerce, to propose that in your estimable publication and in your frequent bulletins you editorialize the suggestion that doctors take a more active financial and moral interest in these organizations. . . . Had such an effort been made by the A.M.A. and others, prior to the present threat of socialized medicine, I am confident the way would have been open to much more forceful and whole-hearted cooperation from those who have too long been neglected by too great a majority of your members."

Mr. Meek's advice is sound. For "chambers of commerce" in his text read any local civic activity, from the policemens' ball to voting in the primaries, from the meetings of the American Legion to those of the service clubs and so forth. "Too busy" is no excuse, though it may be an explanation, especially during a war. No time? Perhaps, but if you are not yet dead you have time. Too tired? Perhaps that, also; if so, ease up on something else, doctor. Public relations begins at home. It may originate in the office and in the hospital; it should commence there, but it should be followed up by initiative and active interest in those things outside of medicine proper which lie close to the heart of the man in the street, those things which are above and beyond your performance of cloistered duty, or the mere contribution of money to a worthy You are medicine's public relations representative, twenty-four hours a day.

#### Sustained Active Immunization

The subject of immunization, especially active immunization, cannot be overstressed. Prophylactic inoculations and chemotherapy constitute two of the stoutest pillars of modern medicine. Principles gleaned from research constantly in progress should be extensively circulated so that they can be speedily incorporated in medical practice. Military medicine has given a mighty impetus to the clinical application of such studies.

Diseases caused by toxins, such as diphtheria and tetanus, readily lend themselves to scientific studies because of the existence of accurate methods of titrating the antitoxin in the blood. The efficiency of active immunization by toxoids can be gauged by the titration of the resulting antitoxin. Such researches have taught us the total amount of toxoid needed, the number of injections needed, and the length of the intervals between the injections. Upon these three factors the successful outcome and duration of active immunity depend.

After some experimentation the number of injections optimal for immunity against preventable diseases has been fixed for such diseases as diphtheria, tetanus, typhoid and paratyphoid, and whooping cough. The interval between injections may vary in different diseases. In the case of diphtheria the New York State Department of Health now recommends an interval of a month between the injections. In the case of tetanus, better immunity may be obtained by lengthening the interval to two or three months, for antitoxin so elaborated persists for a longer period and tends to reach a higher titer. These conclusions can be easily reached by quantitative studies when toxoid antigens are used, but such is not the case with bacterial vaccines. However, because of analogy with the toxoid immunizations, the trend has been to lengthen the interval between injection of vaccines. That better and more lasting immunity is so attained is suggested by animal protection studies.2.3

No active immunization produces absolute and permanent immunity. Even vaccination against smallpox, which involves inoculation with a live virus, generally does not produce permanent immunity. Hence the need for revaccination from time to time-every five to seven years. Vaccination with dead microorganisms necessarily leads to immunity of shorter duration, reflected in a downward curve of antibodies a few weeks or months after vaccination. To boost this waning titer of antibodies. secondary injections are gaining favor. Tetanus toxoid is now injected annually after the initial prophylaxis, and the same may with profit be applied to diphtheria prophylaxis, which at present is perpetuated by triennial injections.

<sup>&</sup>lt;sup>1</sup> Bigler, J. A., and Werner, M.: J.A.M.A. 116: 2355

<sup>(</sup>May 24) 1941.

<sup>2</sup> Cohen, P., and Scadron, S.: J.A.M.A. 121: 656 (Feb. 27) 1943.

<sup>&</sup>lt;sup>2</sup> Lapin, J.: Am. J. Dis. Child. 63: 225 (Feb. 1) 1942.

**EDITORIAL** 

in an address at Chicago, before the Congress of Medical Education and Licensure, that some persons either are 'too careless or uninterested to use' medical resources available to them. 'If, through advertising, a public demand can be created,' he said, 'for automobiles, electric ice boxes, certain brands of cigarettes, and patent and home medicines, the people can be taught to seek adequate medical service.'

"The medical profession not only could use some advertising of its services, as Dr. Davison advocates, but also it should give the public a good dose of publicity about itself for 'good will.' One of the principal political issues of the day is socialized medicine, and the politicians are going to work it for all it's worth to win popular support. An uncomfortably large number of persons, already placing faith in government as the nurse for their economic ills, are willing to turn to the same source for treatment when physically sick.

"The doctors need a job of selling not only in their role of medical men, but as private doctors, as opposed to public doctors. The News and Courier believes in the American system of private enterprise, and that goes for physicians, too. But some of its readers think otherwise, and it will take a lot of educating to convince them. It's up to the doctors to help their own cause. It pays to advertise."

An address by the Honorable Louis E. Miller of Missouri before the St. Louis Medical Society on the Wagner-Murray-Dingell bill and socialized medicine was included in the *Congressional Record* of February 3, 1944, under extension of remarks on Honorable Walter C. Ploeser in the House of Representatives.

Excerpts from this address follow:

"The Wagner bill, in so far as it attempts to create a system of socialized medicine, is nothing morethan a political opiate intended to dull all senses and make easier the final conquest of state socialism."

"Under the benediction of the present administration it has grown to its present size and activity with more than 3,000,000 persons on its pay roll. One agency of this New Deal octopus, the O.P.A., boasts a proud pay roll listing over 2,700 lawyers, while a similar organization in England, after which the Washington plan was largely copied, gets along with only ten attorneys. The great State of Pennsylvania conducts its business with 44,000 state employees, while at the same time the bloated bureaucracy of Washington maintains 215,000 federal employees on its pay roll for that state; the State of Wyoming transacts its business with fewer than 1,000 employees, but the federal government maintains over 6,000 on its pay roll to handle the federal business of this sparsely settled state. The federal bureaucracy has been termed a Frankenstein monster, but what can be said of the monstrosity known as the Wagner-Murray-Dingell bill?"

In discussing postwar planning, Labor's Monthly Survey (American Federation of Labor, Vol. 5: No. 2, Feb., 1944) contains on page 1 the following paragraphs which are highly significant, coming from this source:

"Do we want a great bureacuracy to dominate American life after the war, with dictators like those we now have who can set aside collective bargaining agreements without even considering the facts on which these agreements are based? Do we want to be ruled by individuals from whose decisions there is no appeal? Do we want domination by the military? This is the Fascist way, not the American way. Yet the surest way to get this very dictatorship is to fail now to set up a democratic civilian agency to direct postwar policy, with assured representation of all groups concerned.

"Without definite policy directives, determined by a representative civilian group, we shall have chaos and confusion which will provide the opportunity for the government to take over as in Germany and

Italy."

Doctors, however, will have to realize more acutely than they have in the past the obligation which, locally, is theirs as representatives of the medical profession. They will have to interest themselves in local projects more actively than they have done. The public relations of the profession cannot be left in the hands of the Council of the A.M.A. alone, or be reposed in the public relations bureaus of the state societies or the county societies and there be left for someone else to attend to. These bodies have their proper usefulness, but the burden of the maintenance of good public relations rests, in the final analysis, on the shoulders of the individual physicians in each community.

Better cooperation and more cordial relations of the medical profession with chambers of commerce throughout the country are no doubt much to be desired. That it is felt the doctors have not evinced sufficient interest in such bodies devoted to civic improvement is indicated in a letter from Mr. J. T. Meek, executive secretary of the Illinois Federation of Retail Associations of Chicago, to Dr. Morris Fishbein. The following items are from the letter:

"There were indications from the chamber of commerce secretaries that they had had no easy time, on several occasions, interesting their members in the grave possibilities of this program (S. 1161) for the simple reason that doctors in their

#### RADIUM IN PRESENT-DAY THERAPEUSIS

Douglas Quick, M.B. (Tor.), New York City

A TPRESENT radium is not being used to the full extent of its proved value in the treatment of malignant neoplastic diseases. This situation has been brought about over a period of several years and by a combination of circumstances.

Radium, as a source of energy of therapeutic value, gained a measure of popular favor at an earlier date than x-rays. During these earlier years, while x-rays of the lower voltages only were available, radium made rapid progress. This progress was marked in the demonstrated influence of radium on tumor tissue and also in technical advances for the actual application of radium. The progress made, and the experience gained, was largely on an empiric basis. The clinical material available for treatment represented chiefly advanced stages of cancer. Control of growth was soon found to be dependent on the heavier applications of radium-larger dosages. The refinements and accuracy of presentday dosage determinations were unknown. It was but natural that very many distressing and painful reactions were experienced. It was but natural also, in view of the advanced character of the material and the known average curability of cancer, that many of these distressing and painful reactions never benefited or profited the unfortunate victims of such advanced disease. However, those reactions, necessary as they were in the development of a new agent and in spite of the lethal character of the disease, created a very unfavorable impression with the public and with a substantial group in the profession. That impression has had a lasting, unfavorable, and unfortunate influence on radium therapy during the intervening years.

During those early years of developing radium therapy the progress was rapid to the point of being spectacular. Clinical observations of sound and lasting value, supported ultimately by physical proof, often preceded the physical investigations which helped to put the entire program on a sound physical as well as a sound clinical basis. Time does not permit enumeration of the various steps of rapid progression from the simple lead-encased radium tube on the surface to telecurietherapy, or from that same tube on the surface to various methods of intracavitary and interstitial irradiation with varying types and degrees of filter. The important point is that it was a period of great activity. It stimulated a

renewed interest in the cancer problem in general. Radium had, at once, a large audience.

The development of the gold radon tube, or seed, by Faills in 1924 and 1925, to replace the glass radon implant was the last of the spectacular improvements and developments in a very busy, stimulating, and eventful ten-year period.

Following my first use of the gold radon seed in 1925, thus opening a much wider range of usefulness for radium, the work in radium therapy settled down to a course of less spectacular but steady progress. That progress, however, has not been so uniform or so widespread as it should have been.

Sufficient quantities of radium to insure adequate range of facilities were available in very few places. Emanation-producing equipments were still more scarce. Small amounts of radium were acquired by many individuals and institutions under varying circumstances. Some few remarkable examples of unusually good work stand out as monuments to men of caution, judgment, and keen observation for their often singlehanded work with these small radium supplies. On the whole, however, the small independent radium supply in inexperienced hands has, in the past, done much to discredit radium therapy. The errors were chiefly of insufficient dosage and were often made in an effort to extend the use of radium too widely. (It is hoped that with certain altered conditions the small supply will, in the future, prove to be very valuable in its local community.)

About the time that radium therapy was becoming stabilized and some of its limitations, as well as its values, recognized, improved equipment for x-ray therapy became available. Since that time, the development of x-radiation, in all of its phases, has been more rapid and more spectacular even than that of radium in its initial period.

The rapidly developing x-ray therapy equipment had the advantages of a well-established experience in the physics of radiation. Training in departments of radiology was being organized on a national scope. The young man in roent-genology had available good equipment and good facilities for instruction at many centers at least. X-ray therapy was completely "within the department"—there was no outside influence or control over it, except perhaps in a very indirect way. Most or many of these same departments had no radium supply, a very limited supply, or a supply available under certain con-

Read before the New England Roentgen Ray Society, Boston, January 21, 1944.

Better immunity against typhoid fever may also be retained by a single annual injection instead of three spaced injections administered every two or three years. Immunity against whooping cough may conceivably be better maintained by annual or biennial injections. It also has been demonstrated that booster inoculations cause a more rapid elevation of antibodies if a fluid instead of an alum medium is used.<sup>4</sup> This is important in prophylaxis against tetanus.

<sup>4</sup> Miller, J. J., and Humbert, J. B.: J. Pediat. 23: 516 Nov.) 1943.

These lines of investigations of active immunization all point in one direction. The trend is undoubtedly to inoculate at longer intervals than has been the custom. To perpetuate a higher and more constant level of immunity, use of a single annual booster dose is gaining increasing support. Fluid preparations should be used for booster injections if a speedy rise of antibodies is desired, as in continued tetanus prophylaxis.

Sustained active immunization is a distinct advance in the field of prophylaxis.

#### Correspondence

Greater New York Councils Boy Scouts of America 120 West 42nd Street New York, New York March 22, 1944

Dr. Peter Irving Medical Society of the State of New York 292 Madison Avenue New York City Dear Dr. Irving:

We operate several summer camps for the New York City Boy Scouts as a nonprofit enterprise. You were kind enough to help us in securing doctors for these camps in previous years. Would you be willing to make our needs known to the members of your society again this year?

You may well appreciate the difficulties being encountered by us in trying to staff our camps, especially with doctors. It occurs to me that for one reason or another doctors may be available who would wish to spend their vacation period of a few weeks, a month, or even the whole summer at our camp.

Will you tell me if you can assist us by publishing a notice of our need in your society's bulletin?

I will be glad to furnish any further information you may desire.

Thanking you, I am Very sincerely,

WILLIAM G. KEOUGH
Assistant Director of Camping

#### A.M.A. Public Relations Council Opens Washington Office

It will be good news to our membership that a Washington Office has been established by the Council on Medical Service and Public Relations of the A.M.A. under the chairmanship of Dr. Louis H. Bauer. The office has been opened in the Columbia Block of the Doctors' Hospital at 1835 Eye Street, N.W., Washington, D.C., Suite 900. A secretary has been engaged and two telephones are available.

Under an arrangement with the Medical Society of the State of New York, Dr. Joseph S. Lawrence, Executive Officer of the Society, is acting for the time being in the capacity of consultant and is spending about half of his time in Washington. His long experience as director of the Albany office of the New York State Society should assure the success of the Washington office of the A.M.A. if the proper and necessary facilities are made available. The office is already busy establishing contact with the legislative and public relations committees of the various States of the Union. Dr. G. Lombard Kelly is the permanent secretary. He will spend part of his time in Washington and part in Chicago.

In considering radium as an aid to either surgery or x-rays it must be thought of in terms of surface, intracavitary, or interstitial application.

It is only in the dermatologic field that there may be some overlapping between radium and x-rays. Most of this work is now handled by xradiation and yet I believe there are cases in which, with adequate experience, a more satisfactory result may be obtained with radium. This applies to some of the very superficial lesions in prominent locations, but more particularly to fully differentiated skin can cerin awkward, complicated locations where both appearance and function are especially important ultimate considerations. As an example, I would suggest the insignificant-looking but deeply infiltrating growth at the side of the nose, in the nasolabial fold. It is a condition in which radium needles are infinitely superior to any other manner of irradiation. The facility of accurate application favors radium in some of these tedious locations: it may be particularly so about the evelids.

As a source for external distance application I think we can at once dismiss radium from practical clinical consideration. Any consideration of telecurietherapy is for the biophysical laboratory at present.

This brings us to a consideration of the part that radium may play by intracavitary and interstitial application, either alone or, more often, in combination with surgery or x-rays.

It would perhaps be more practical to consider these methods of application in connection with some of the major groups of malignant disease rather than as abstract technical problems. When it comes to using radium in body cavities or by needle or radon seed implantation, the complications of jurisdiction or surgical privilege are apt to arise. These complications all too often interfere with the best interests of the patient.

In that large group of epidermoid carcinomas involving the upper mucous membrane tract and with their metastatic extensions, I am sure most of you know how I feel about the intimate and essential part that radium plays—always by implantation and usually by radon seed implantation.

Radium is essential in the treatment of the primary growth of all but the totally undifferentiated anaplastic tumors—and most of these are in the hypopharynx. Surface application of radium should have no place in the mouth. Radium needles in very accessible locations and in firm, stitch-holding tissue may be used. Surface, but not contact, heavily filtered radium may be used to advantage, in conjunction with

surgery, in the maxillary antrum, accessory sinuses, or nasopharynx. In all these cases x-ray therapy goes without saying—it is routine: but it is the sole agent only in the totally anaplastic growths. There are a few very accessible primary growths of tongue, cheek, or palate where x-rays through cones may be used to advantage. However, I am convinced that the average intra-oral x-ray cone therapy does far more harm than good. It fails all too frequently to control growth, either through inadequate dosage or incomplete technical application, and it excludes radium from a place to which it is admirably suited. In the neck metastases, xray cannot completely control any but the totally anaplastic types-radical surgery is limited to a selected few of the fully differentiated. The majority of metastatic nodes are chiefly dependent on radium needle or radon seed implantation. in conjunction with surgical exposure for accuracy and following routine preliminary xray therapy. It is very unfair, however, to limit the treatment to x-radiation on the assumption that it can only be palliative. Such a position condemns the patient to no more than palliation, and usually short-term palliation at

What is said here with reference to neck nodes applies equally to metastatic epidermoid carcinoma elsewhere.

We hear of various fancy applicators for the use of radium in the larynx. Laryngeal cancer is an x-ray problem and radium should be reserved for the complications or recurrent cancer of the larynx—its use then is usually by implantation and in conjunction with surgery—usually cautery.

From time to time the use of radium—usually some type of implantation—is advocated for some growths in the bronchial tree or the esophagus. The inaccuracy, danger of induced infection, and lack of surgical drainage at once condemn such procedures. Throughout the entire period of radium usage it has been the poorly conceived or poorly executed procedure that has tended to discount, unreasonably, a very valuable agent.

With those of us who have been especially interested in radium it has been a matter of disappointment that it has not been able to contribute more in the field of breast cancer. It is true that cancer of the breast—a glandular type of cancer—follows a different clinical pattern than does the epidermoid carcinoma. However, trends again may be referred to as having an influence. The trend with breast cancer has always been strictly and traditionally surgical. The early Sampson Handley work with radium in connection with breast cancer surgery

ditions but controlled outside the department of roentgenology.

It is but natural that the younger radiologist has all too often grown up with an improper perspective on therapeutic radiology. It has not been his fault. Yet he suffers from incomplete training. Radium, as a valuable source of therapeutic radiation, suffers from lack of proper recognition. And, most unfortunately, the cancer patient fails to receive the benefit that might have been available with a better experience-perspective in coordination of x-radiation and radium radiation.

The universal availability of x-ray therapy today tends to relatively "oversell" that type of radiation to the disadvantage of its complementary source of therapeutic radiation—radium.

There are also other influences that have to do with the shift of radium to a lesser position than it properly should occupy. In medicine, as elsewhere, certain trends influence procedures in a progressive sort of way. Certain methods tend to become professionally fashionable and, all too often, to maintain their position largely by virtue of the high-powered professional advertising which supports them.

As previously mentioned, radium aroused a new interest in the entire cancer problem. Radiologists and pathologists were by far the more active workers in this revival and revision of cancer therapy. A recognition of this fact has in turn stimulated the revival of very radical surgery in cancer. It is difficult to keep the average young surgeon as deeply interested in the drudgery of therapeutic radiology as in the spectacular phases of radical cancer surgery. This flare for ultraradical surgery in cancer today, to the exclusion of a reasonable balance with therapeutic radiology, is permeating some established cancer clinics. Such clinics are looked to as patterns. The smaller clinic and the individual are apt to be influenced, and possibly misled, accordingly.

I fear that this is about where radium finds itself today—just a bit too much obscured by a series of influences which I have attempted to outline, and somewhat overshadowed by the more readily available x-radiation.

There should be no conflict between these two sources of radiotherapeutic energy. There is very little overlapping in their spheres of application. They are strictly complementary agents.

However, before proceeding with this phase of the discussion, there are a few very simple facts regarding radium that one should keep in mind.

Radium is a local agent. It represents, actually, a point source of radiant energy. The radon implant is the most progressive practical development in radium therapy. The only

gesture toward radium as a constitutional agent was our attempt of twenty-five years ago to use an active deposit intravenously. It was not practical but has had an interesting relationship to the use of radioactive isotopes at this present time.

In any treatment procedure, radium is rarely the sole agent used—except perhaps in certain skin lesions or some few inflammatory processes.

The question of selective action as between x-rays and gamma rays of radium has not been settled, although the weight of opinion seems to be against such variation in effect.

The relative range of an optimum exposure or treatment time has not been determined, except empirically per individual operator. It is quite possible that the prolonged exposure of the radon implant or the necessarily long exposure incident to a small initial radium supply may be the factor that confuses the question of favorable influence and selective action.

No practical means of increasing the ionization within the tumor-bearing area has been found.

No other means of either sensitizing the tumor to irradiation or increasing the resistance of surrounding normal tissue has been found. The problem is one of maximum dosage consistent with normal tissue tolerance, whether radium or x-rays are used.

Since radium is a local agent adapted to application in small space and, from practical necessity, at present, otherwise limited, it obviously is an agent to be used as a complement to x-radiation and to surgery.

The x-radiation and the radium radiation fill two different essential needs in technical application-each supplements the other in most instances, and this fact should never be lost sight of by the radiologist. No man should attempt roentgen therapy without a thorough working knowledge of radium. Whether he actually handles the radium himself or not, he should know when and how it should be done. should be no roentgen therapist. He should be a therapeutic radiologist. The need for this distinction and the need for correction of onesided training, as it too often exists today, has been noted many times in the examinations of the American Board of Radiology. I believe that plans are under way to correct this deficiency in training and I hope that, following the. war, radium in proper form will be more uniformly available.

There are few cases of malignant neoplastic disease in which at some time or phase in the treatment at least two, or frequently all three, of the principal factors in today's cancer treatment—surgery, x-ray, and radium—do not find useful application.

In considering radium as an aid to either surgery or x-rays it must be thought of in terms of surface, intracavitary, or interstitial application.

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In that large group of epidermoid carcinomas involving the upper mucous membrane tract and with their metastatic extensions, I am sure most of you know how I feel about the intimate and essential part that radium plays—always by implantation and usually by radon seed implantation.

Radium is essential in the treatment of the primary growth of all but the totally undifferentiated anaplastic tumors—and most of these are in the hypopharynx. Surface application of radium should have no place in the mouth. Radium needles in very accessible locations and in firm, stitch-holding tissue may be used. Surface, but not contact, heavily filtered radium may be used to advantage, in conjunction with

surgery, in the maxillary antrum, accessory sinuses, or nasopharynx. In all these cases x-ray therapy goes without saying—it is routine; but it is the sole agent only in the totally anaplastic growths. There are a few very accessible primary growths of tongue, cheek, or palate where x-rays through cones may be used to advantage. However, I am convinced that the average intra-oral x-ray cone therapy does far more harm than good. It fails all too frequently to control growth, either through inadequate dosage or incomplete technical application, and it excludes radium from a place to which it is admirably suited. In the neck metastases, xray cannot completely control any but the totally anaplastic types-radical surgery is limited to a selected few of the fully differentiated. The majority of metastatic nodes are chiefly dependent on radium needle or radon seed implantation. in conjunction with surgical exposure for accuracy and following routine preliminary xray therapy. It is very unfair, however, to limit the treatment to x-radiation on the assumption that it can only be palliative. Such a position condemns the patient to no more than palliation, and usually short-term palliation at

What is said here with reference to neck nodes applies equally to metastatic epidermoid carcinoma elsewhere.

We hear of various fancy applicators for the use of radium in the larynx. Laryngeal cancer is an x-ray problem and radium should be reserved for the complications or recurrent cancer of the larynx—its use then is usually by implantation and in conjunction with surgery—usually cautery.

From time to time the use of radium—usually some type of implantation—is advocated for some growths in the bronchial tree or the esophagus. The inaccuracy, danger of induced infection, and lack of surgical drainage at once condemn such procedures. Throughout the entire period of radium usage it has been the poorly conceived or poorly executed procedure that has tended to discount, unreasonably, a very valuable agent.

With those of us who have been especially interested in radium it has been a matter of disappointment that it has not been able to contribute more in the field of breast cancer. It is true that cancer of the breast—a glandular type of cancer—follows a different clinical pattern than does the epidermoid carcinoma. However, trends again may be referred to as having an influence. The trend with breast cancer has always been strictly and traditionally surgical. The early Sampson Handley work with radium in connection with breast cancer surgery

was to be commended for its zeal but had little to offer in its execution. The Keynes work with radium in primary breast cancer ignored both the traumatic and the esthetic factors. Both of these efforts failed to utilize the necessary combination with x-radiation. It is unfortunate that this large and important group has never had a strong advocate for radiation, as have some of the other major cancer groups.

It goes without question that x-rays cover that entire routine of preoperative and post-operative breast irradiation. However, I am sure there is, here and there, a case in which radon may serve a useful purpose also in the primary growth, perhaps to the exclusion of surgical removal.

For a good while I have been interested in radon seed irradiation of the axilla in combination with x-radiation. In certain very early cases, and in some selected for other reasons, it has been possible to place the surgical scar low (a modified Stewart-type incision), save the pectoral muscles, and by implanting the under surface of the pectorals in the long axis of the axilla, after dissection, to double the intensity of irradiation in the axilla. I mention this as seemingly having some perhaps limited application in certain selected cases. The radium does step up the efficiency of irradiation of an area impossible to irradiate with complete satisfaction with x-rays as now used. It does it with safety. After all, that is the type of supplemental aid for which radium is really valuable.

In axillary operation for breast cancer, as well as for axillary involvement from other primary sources, it occurs not infrequently that the anatomic relationship and fixation make clean removal impossible. Under such circumstances, gold seeds of radon are very valuable and may turn failure to success.

The same general situation, in principle, is all too frequently encountered in surgical operations for malignant disease in various parts of the body. Radium, gold seeds of radon by preference, otherwise radium needles, should always be available for such emergencies. I do not imply that such an adjuvant will always turn failure to success. It does, however, offer the only real chance and is successful, in part or in entirety, with sufficient frequency to make it imperative operating table equipment. The surgeon is not justified in assuming the responsibilities of an operation for cancer, especially if there is the slightest question of extent of involvement, without having implantable radium available to help in meeting an emergency. The surgeon is not justified in assuming responsibility for such an operation unless he is capable of using radium intelligently and with technical competence. He is in a position comparable to that of the roentgen therapist to whom I referred previously, except that his responsibility is greater. The surgical situation is more apt to be an emergency—if the wound is closed without radiation the best chance for aid is lost.

It is obvious that the physician assuming responsibility for any phase of specific cancer therapy, x-ray or surgical, must be familiar with and have access to proper and adequate radium supply. It is usually only an adjuvant, but a very essential one.

In the bowel tract radium plays a very minor role—except in the rectum. I refer to this for a very definite reason. Radium is thought of too often in terms of advanced disease and palliation. What little of palliation is available to the rectal cancer victim—beyond a good colostomy—can usually be best done with x-rays. The early accessible rectal growth is the proper one for radium. Technically, this is best accomplished by prolonged irradiation, using either filtered implants or daily exposures of heavily filtered radium in the special protected Binkley applicators, or both.

I hesitate to refer to the bladder and prostate. In addition to being a painful area, the anatomic and technical problems are such that radium must be called upon with reluctance and caution, and only after the maximum possibilities and benefits of x-radiation and surgery have been utilized.

In contradistinction to this, cancer of the female pelvic organs always has been, and still is, the leading major group for radium therapy. The factors of relative growth response, accessibility, drainage, and pain are practically reversed from the bladder and prostate situation.

It is understood that external pelvic irradiation with x-rays is an integral part of today's routine therapy for uterine cancer. This, however, does not detract in the least from the radium usage as of the time preceding good efficient x-ray therapy. There is, of course, some shifting in the extent to which implantation is carried out in the cervix or paracervical zone. Radon implants are used less, but still used. Some types of special needles, such as those of Pitts, are a real advance. Radium has in no sense been supplanted or replaced by intravaginal x-radiation through cones. I mention this procedure only for the purpose of condemning it. There is no excuse for attempting to replace accurate, efficient irradiation with radium by such an inaccurate, uncertain, and esthetically unacceptable procedure.

During the past few years radium has come to occupy a stronger position in cancer of the uterine fundus. The results are adequate proof

jection of not being able to visualize the area of involvement for accurate radium placement has been met in part by Heymann's method of filling the cavity of the fundus with multiple tubes of radium. This reduces the objection but does not eliminate it. Hence, those who follow the irradiation by hysterectomy are in a sound position, providing the case be a favorable surgical risk-another example of coordinate use of all agents and methods.

Another procedure involving radon implants and not used, in my judgment, either early or often enough should be called to your attention. I refer to surgical pelvic exploration following routine irradiation-usually for carcinoma of cervix—where the question of a metastatic node is under consideration. We know that it cannot be reached with accuracy or safety through the vaginal vault. We know that the distance irradiation will not control it. Exploration and direct implantation affords a means of efficient and accurate treatment exactly comparable to the implantation of an epidermoid carcinoma node in the neck or in the inguinal area. The abdominal incision is a small consideration when dealing with a vital determining factor in a lethal disease.

This same problem of coordinating the advantages of x-radiation, surgery-radical or for exposure or drainage only-and radium in some

of the value of the procedure. The earlier ob- -form-usually radon seeds-is so important that it can scarcely be overemphasized. I continue to repeat it at the risk of appearing tedious. The radium in the combination plays a lesser role but it is a peculiarly vital role. It is a part that cannot be handled otherwise and yet it is a part that done alone would but rarely succeed, on its own.

> It is for this reason that a thorough all-round knowledge is essential on the part of the cancer clinician, whether he be therapeutic radiologist or cancer surgeon. It is for this reason that radium facilities should and must be as efficient and as readily accessible throughout the country as are facilities for x-ray therapy. It is for this reason that those in charge of therapy by irradiation must be as well trained in radium therapy as they are in x-ray therapy. And it is for this reason also that the cancer surgeon must be adequately and equally familiar with both.

> Our cancer treating facilities at this present time are far from ideal. They are, however, better than they were twenty-five, or ten, or five years ago. The small percentage of gain which accrues from taking full advantage of each facility or aid makes the ultimate result just that much better, and makes it a bit easier to do a better job for the next patient.

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#### HEALTH PROGRAM EXTENDED IN AMAZON, RIO DOCE VALLEYS

Health and sanitation work in the Amazon and Rio Doce Valleys of Brazil, which are being developed as sources of strategic materials, will be extended under a five-year agreement just made between Brazil and the United States.

The new Brazilian-United States agreement broadens the scope of the cooperative work by these countries under the great inter-American health and sanitation program growing out of the Rio de Jan-eiro Conference of American Foreign Ministers.

The new agreement calls for a joint fund of \$8,000,000 to carry on health and sanitation projects in the Amazon and Rio Doce Valleys in support of the economic development going on there. The Amazon is the source of rubber and other forest products: the Rio Doce Valley is one of the world's greatest sources of minerals, including huge iron ore deposits. They are supplying essential materials for

United Nations war industry.

Brazil has agreed to contribute \$5,000,000 to the joint fund for continuation of the work over a five-year period. The United States contributes \$3,000,-000, through the Institute of Inter-American Affairs, an agency of the Office of the Coordinator of Inter-American Affairs.

These funds will enable the organization built up

in the last two years for the Amazon and Rio Doce work to carry on numerous projects for malaria con-trol, building of hospitals, health centers, and dis-pensaries, and the training of nurses and other per-Railroad centers, airports, river shipping points, and other strategic areas are expected to benefit from malaria control and new health facilities to prevent the spread of disease. As the crossroads for heavy wartime air traffic to and from Africa and other transatlantic destinations, northern Brazil has special need for additional health facilities.

About fifty United States doctors, engineers, and other specialists are working with some 2,500 Brazilians in the Amazon and Rio Doce campaigns against disease.

In the Amazon the job includes the distribution of antimalarial medicines from infirmaries, medical posts, and dispensaries. Other phases of the Amazon work include the establishment of mosquito control posts at main points of supply and drainage of malaria swamps around large communities.

In the Rio Doce area the projects embrace construction of water supply and sewage systems and the installation of drainage ditches and other sanitation facilities.—Release from the Office of the Coordinator of Inter-American Affairs

#### THE MANAGEMENT OF CARCINOMA OF THE CORPUS UTERI

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TMPROVEMENT in the results following treatment for carcinoma of the corpus uteri will depend primarily, as in most other cancers, upon the shortening of the interval between the appearance of the first symptom and the time when therapy is instituted. The most important factor in this delay is the still prevalent fear that all cancers are incurable. Shortening the delay will depend upon our ability to convince the general public and many physicians that some cancers, particularly those of the uterus, are readily cured if attacked early, and on increasing cancer-mindedness among physicians who will first see these patients. Of less, but still considerable, importance is improvement in the technic of radium and x-ray treatment applied either alone or as an adjunct to hysterectomy.

Despite the enormous amount of energy expended on cancer education, the lag between the appearance of the first symptom, usually vaginal bleeding, and the beginning of therapy is still discouragingly great. Of the 201 cases here studied (Table 1), one-third of the patients had symptoms for more than a year, and half of them for over six months prior to the first visit to a physician. While ignorance accounts for much of this delay, fear based on the notion that cancer is incurable seems to play a more important part. It is natural to believe that, since the disease is incurable, it is best to keep it out of one's mind by submerging what one has heard about the significance of vaginal bleeding and by rationalizing about the change of life or returning youth. Not only is this idea of incurability present in the minds of large numbers of the lay public, but it also colors the attitude of many physicians and other professional workers such as nurses. Frequently in our neoplasm clinic they exclaim that they did not know that so many people could be cured of cancer. Twenty-five per cent of a class of medical students entering their fourth year, believed that the cancer situation was quite hope-This is easily understandable. The cured cancer patient does not parade her good fortune; indeed, she will often continue to hide the fact that such a condition had existed: Only those working in a follow-up clinic will see a considerable number of such patients grouped together. On the other hand, the uncured patient will for many months remain an object of pity, of prolonged medical attention, and will often present symptoms which will accentuate the apprehension which all have toward cancer.

Improvement in this situation will only follow the realization by all—laymen and physicians that cancer of the uterus, when attacked early, can be eliminated or treated by radiation with great success. Only on this basis can there be aroused an aggressive attitude to take the place of the prevailing dread with its handmaidens of evasion and deception.

Delay due to diagnostic error is becoming less and less frequent although there is still considerable room for improvement. As indicated in Table 1, only half of the cases were treated immediately after being first seen by a physician. Improvement here will follow a greater cancermindedness among physicians, an insistence on early examination, and a wider practice of performing periodic examinations.

The principal cause of diagnostic error was overemphasis on the teaching that cancer of the corpus uteri is a disease of old women past the menopause. Patients in their late forties were treated as long as eight months by endocrines until finally the cancer was revealed by a diagnostic curettage. Since menstruation still continued and since the gynecologic examination ruled out cancer of the cervix, the possibility of cancer of the corpus was ignored.

Fig. 1 shows graphically the age incidence of carcinoma of the cervix and corpus uteri in patients admitted to Sloane Hospital. It is apparent that although the proportion of corpus cancers to cervix cancers increases with age, there are fewer cases of corpus carcinoma at all ages. On the other hand, it occurs at all the ages at which carcinoma of the cervix is found. The peak of the curve of the corpus carcinomas (50–55) is only five years later than that of the cervix (45–50). The inference is made that, while cancer of the corpus does occur more frequently in the later postmenopausal years, it must be kept in the diagnostic picture at all ages. Two of our patients were aged 27.

A less important factor is the taking of incomplete biopsies under the impression that the taking of a cervical biopsy is like collecting a specimen of blood or urine to be sent to the laboratory, with consequent neglect of an appraisal of the gross specimen and of an examination of the rest of the uterine canal. If bleeding be a symptom, specimens should be obtained from all sections of the uterus, preferably by the performance of a "fractional curettage," separate specimens being removed from the cervix, each horn of the uterus,

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 5, 1943.

TABLE 1.—DELAT IN THE ADMINISTRATION OF THERAPY FOR CARCINOMA OF THE FUNDUS

	Over 1 Year	Over 6 Months	Over 2 Months	Over 1 Month	Under 1 1 Month	Total Number of Patients
From the first symptom to the first visit to a physician	69	38	45	18	20	190
From the first consultation to first visit to the therapist	1	6	24	23	50	104
From the first visit to therapist to treatment	0	3	6	8	102	119

It is clear that the greatest delay occurs before the patient first consults a physician. The patient is also responsible for most of the delay after this first consultation and to a less extent for the delay after visiting the therapist.

and the main uterine cavity. In the horn of the uterus a very small curette must be employed to catch the occasional small cancer located in such a way that it would be missed by a large curette. We have no experience with the suction biopsy in these cases. This technic is satisfactory for the obtaining of bits of the endometrium for physiologic study, but a specimen so removed, for the diagnosis of carcinoma, if negative, does not exclude the presence of carcinoma and should be ignored.

#### Treatment of Cancer of the Corpus

The present status of the treatment of cancer of the corpus is indicated in Table 2. Of the three principal methods, hysterectomy is the oldest and still the most widely employed. Candidates for the National Board certificate give it most often as the accepted treatment of cancer of the corpus,

AGE INCIDENCE - CARCINOMA - "" UTERUS

CERVIX ZZZ 602 CASES CORPUS Z 201 CASES
RATIO - CORPUS - CERVIX -

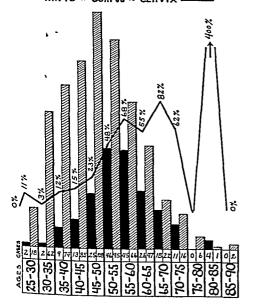


Fig. 1.

implying that in the institutions at which they obtained their education this was the method taught. Satisfaction with this form of treatment stems from the great difference, in the early days, between the results of hysterectomy for cancer of the cervix and that following hysterectomy for cancer of the corpus. Practically all patients with carcinoma of the cervix died, whereas a respectable portion of those operated upon for carcinoma of the corpus (47–55 per cent) survived. The difference, unfortunately, gave rise to the general impression that the operation gave completely satisfactory results.

Radiation, employed early in the century, at first gave variable results and was attended by many injuries. Early experimental work<sup>1</sup> which seemed to show that adenomatous neoplasms were relatively resistant to radiation also further supported the general statement that cancer of the cervix was best treated by radiation but cancer of the corpus by hysterectomy.

However, occasional patients who, because of senility, obesity, or disease were poor operative risks and others with extensive carcinoma were of necessity given radium. Also a few therapists, notably Heyman,<sup>2</sup> devoted concentrated effort to radium technic. As a result there is a considerable amount of material from which to judge the results of radium treatment. In Table 2 these results are impressive. While in the main not so good as those following hysterectomy, they, especially in recent years, approach them, and, in occasional reports, surpass them. They are good enough to require that operation should be performed only in patients who are good surgical risks.

Naturally, a combination of the two methods was soon attempted. While the number of cases so treated is still relatively small, nevertheless it is apparent that the combination of radiation and operation gives the best results (75 per cent). Examination of 60 uteri treated by radium and removed later (Table 3) shows that in 25 per cent the growth had been completely destroyed but that in 75 per cent the destruction was incomplete, indicating the necessity for removal of the organ, although 73 per cent of the cancers were profoundly affected by the radium. The most notable effect was the intense superficial cauteri-

TABLE 2 .-- FIVE-YEAR SURVIVALS FOLLOWING TREATMENT FOR CARCINOMA OF THE CORPUS BY DIFFERENT TECHNIC

Reporter	All ( Number Radium Alone		Ino Number	perable Percentage	Ope Number	erable Percentage
Heyman <sup>2</sup>	reaction attone					
1914–1931 (4 years) 1932–1935 (4 years) Fricke and Bowing, 1915–1928 Fricke and Heilman, 20 1925–1935 Healy and Brown <sup>3</sup> Hurdon <sup>21</sup> Norris and Dunne <sup>22</sup> Ward <sup>23</sup> Sloane Hospital	228 178 54 109 96 67 89 69	33.8 55.0 22.2 39.0 39.0 43.1 43.0 32.0 29.0	42 20 48 33 7 27 	16.7 40.0 8.33 6.0 0.0 14.8	186 158 16 76 64 40 	35.5 57.6 50.0 52.6 58.0 62.0 
Miller <sup>6</sup>	29	37.0	• • • • • • • • • • • • • • • • • • • •			***
1	Hysterectomy Ale	net				
Pfleiderer <sup>24</sup> Stacy <sup>26</sup> v. Mikulicz and Volbracht <sup>26</sup> Norris and Dunne <sup>22</sup>					163 333 133 115	51.5 55.3 54.1 47.8
	Followed by Hy	sterectomy				
Healy and Brown,*3 all doses Healy and Brown,*3 doses of 3,000-4,000 mg.ra Heyman <sup>2</sup> Ward and Sackett <sup>27</sup> Newell and Crossen <sup>28</sup> Morton <sup>29</sup> Arneson <sup>4</sup> Sloane Hospital*,‡					93 28 65 21 19 18 10	55.0 75.0 78.0 57.1 63.2 61.1 90.0 72.7
X-Ray	Followed by Hys	terectomy				
Miller <sup>6</sup> Corrected for noncarcinoma deaths, 82.3%.	Uncorrected				34	70.5

\* Some of these patients received x-ray therapy in addition.

† Recent reports of small groups of cases show five-year results up to 67 per cent. The reports tabulated are more valid because of the large numbers of cases but include those operated upon many years ago.

‡ There were 2 postoperative deaths. One patient died of carcinoma after four years.

zation. This may explain the absence of recurrences in the vaginal and abdominal wounds in patients treated by the combined method, a complication which occurred frequently in the patients unsuccessfully treated by complete hysterectomy alone.

An evaluation of the effect of roentgen rays is difficult. The patients who received postoperative radiation are often intermingled with those treated by hysterectomy alone. Given preoperatively in addition to preoperative radium it has, according to Healy, Arneson, and Schmitz, Preoperative x-ray withimproved the results. out radium has been employed by Miller<sup>6</sup> with Wintz, employing x-ray satisfactory results. alone, reports a five-year survival of 69.1 per cent of 127 operable cases and 17.9 per cent of 134 cases of inoperable carcinoma. These results have not been duplicated by others, and Gilbert and Solomon8 have never seen a cure of a case of carcinoma of the corpus treated by x-ray alone. Merritt9 states that "radiation alone cannot be relied upon for the treatment of corpus cases."

Two of our patients give evidence of the effectiveness of x-ray.

Case 1.—One was a woman suffering from an extensive carcinoma of the pelvis originating in the corpus. At the curettage, excavations in the wall of the uterus were found so deep and so near the rectal mucosa that it was deemed unsafe to introduce radium. Between May 16 and October 1, 1939, this

patient was given in 54 treatments through one anterior, one posterior, and one perineal field, a total of 10,200 r with 700 kv., 70 and 146 cm. target skin distance and a filter of 4.6 mm. Pb and 2.5 mm. Cu or 0.5 mm. Pb and 0.5 mm. Cu. The para-The uterus regained its normal metria cleared. contour. At a second curettage two years later the uterine cavity was nearly symmetrical but contained residual carcinoma. Following the intrauterine application of 50 mg. of rodium for sixty hours, the patient has survived, with evidence of rectal injury. There are today (four and a half years later) no pelvic symptoms except a mild diarrhea. There is rigidity of the pelvic tissues without induration. Carcinoma possibly persists.

Case 2.—The second patient, on September 25, 1939, had a complete abdominal hysterectomy for a wild anaplastic tumor involving both tubes, ovaries, and the cervix. In November, 1939, there was a recurrence of the growth in the abdominal wound. Given x-ray treatment (200 kv., 2 mm. Cu filtration, T. S. D. 50 cm., four posterior fields 10 × 15 and two anterior fields 10 × 15 cm.—total 9,800 r), the

TABLE 3.—RESIDUAL CARCINOMA FOLLOWING INTRA-UTERINE RADIUM, TREATMENT

Extent	Dep Superficial	th Deep
Direction	Superneun	Deep
None (15)	33	· <i>i</i>
None (15) Small (30) Large (12) Extensive (3)	24 5	7
Large (12)	0	3
Extensive (3)		

Small—area 1 sq. cm. or less. Large—area up to 4 sq. cm. Extensive—involving most of endometrial cavity. mass disappeared. Today (four years later) there is no evidence of carcinoma.

Further evidence of the efficacy of x-ray is furnished by 21 cases of supravaginal hysterectomy for carcinoma of the corpus. Of 14 cases treated by x-ray, 6 survived five years, while of 7 cases not so treated only one survived. On the other hand Healy³ found residual carcinoma in all of 6 patients operated upon after x-ray therapy, and Miller⁵ states that in many cases similarly treated carcinoma persisted. The general conclusion is that there is a definite specific effect of the x-ray upon certain carcinomas of the corpus but that this action is incomplete and should be supplemented by other therapy.

# Improvement in the Management of Carcinoma of the Corpus

The most important advance in the treatment of carcinoma of the corpus will be in the concentration of attention and effort on cancer either by an individual or by an organized group prepared and alert for new methods, skilled in operative technic and in the application of radium and x-ray, and willing to conduct follow-up examination over a long period of time. With this established, improvement in all phases of the management of cancer will quickly follow.

The form of the organization may be that of a cancer clinic separate from the other services, or of a special group within the gynecologic service and working in intimate cooperation with the department of radiology and other groups having to do with the management of cancer. This type of organization is particularly successful in the management of carcinoma of the corpus, the principal symptom of which is irregular bleeding and the physical signs of which are negligible. These patients apply more naturally to the gynecologic clinic than to one limited to the treatment of cancer.

An example of improvement following this type of organization is found at the Sloane Hospital, where such an organization was established in 1930. Before that time the five-year results from the application of radium alone gave a "cure rate" of 16 per cent while that from 1931 to 1937 was 39 per cent. Similarly in the operable cases the percentage of five-year survivals before 1931 was 48 per cent and in 1931–1937 it was 70.9 per cent. Not all cases are treated by the neoplasm group but receive the benefit of information and advice.

The most efficient plan of treatment has not been determined. The evidence is fragmentary and difficult to appraise because of variations in clinical classification, in standards of five-year appraisal of the cases, and in technic. It seems apparent, however, that the intense caustic ef-

fect of intrauterine radium is of considerable benefit and that radiation has a selective action on many carcinomas, but that both of these effects are incomplete so that hysterectomy in addition is required. X-ray and radium applied before hysterectomy insure the early exposure of possible carcinomatous foci outside of the uterus and may insure a greater destruction of cancer at the time of the operation. We have employed radium followed by operation and then by x-ray because intensive x-ray treatment has seemed to make the operation somewhat more difficult and because carcinomas which had extended beyond the uterus at the time of the operation had in most cases already metastasized to distant areas. This phase of the work is in a fluid state and requires more study. treating small numbers of corpus carcinomas should follow a definite technic and should report these cases so that they may be grouped together with others which have received the same treatment.

Improvement in hysterectomy will be slight since the principles of the technic have been well standardized for several years. The major improvement will be in the care of the patient, with a resultant lowering of the operating risk, and in increasing the skill of the individual surgeon. This may be accomplished by the performing of more frequent complete hysterectomies for benign conditions, a practice which is finding increasing favor.

Improvement in radium dosage is greatly needed. Surgeons using radium only occasionally are likely to employ doses which are too small. Healy and Brown<sup>3</sup> report 93 cases treated by large and small doses of radium and later operated upon, with a five-year salvage of 55 per cent while 28 cases similarly treated by doses of over 3,000 mg. hours had a five-year survival rate of 75 per cent. Preoperatively, at the present time, from 3,000 to 4,000 mg. hours of radium with 0.5 to 1.5 mm. Pt filtration may be given with safety. An operation performed five to six weeks later will be attended by no difficulties. Full doses of from 5,000 to 6,000 mg. hours are permissible when the radium is spread out within the uterine cavity and when the bulk of the uterus is considerable. If the uterine walls are thin, the dose will have to be lessened. Otherwise intestinal injuries are likely to follow. Operations performed after doses of this order will be made somewhat difficult by oozing from the congested tissue and later by scar formation. Whether to use a large amount of radium, say 200 mg. for a short time, or smaller amounts, say 50 mg. for a long time, is still a matter of doubt. There is apparently a slightly better effect on the carcinoma by the latter method and certainly a low-

TABLE 4.—CARCINOMA OF THE CORPUS UTERI (Table adapted from Heyman's to show the improvement in four-year results coincident with the adoption of the "packing" technic)

					~======			
		Clinicall	y Operable	Technical	ly Operable	Inoperable		
Technio	Period	Number	Percentage	Number	Percentage	Number	Percentage	
Tandem	1914-1931	84	42.9	102	33.3	42	16.7	
Packing	1932-1935	94	62.8	64	50.0	20	40.0	

Clinically Operable—cases locally operable and able to withstand an operation. Technically Operable—cases locally operable but unable to withstand operation. Inoperable—cases with locally extensive disease.

ering of the incidence of intestinal and bladder injuries.

The distribution of radium in and about the uterus is an essential part of the technic. Sampson<sup>10</sup> showed that it was difficult to place accurately a radium applicator in the normal and especially in a distorted uterine cavity. Most therapists, however, continue to use the tandem form of applicator with generally good clinical results which, however, are probably somewhat inferior to those following the technic described below.

Examination of specimens removed several weeks after treatment by radium in the tandem type of applicator shows incomplete destruction of cancer. Of 46 cases reported by Donovan,11 5 were free of cancer. Of 27 cases reported by Farrar<sup>12</sup> 6 were free of cancer. Healy<sup>3</sup> reports complete destruction of the carcinoma in 3 of 24 cases treated by doses of 1,200-2,700 mg. hours; in 13 of 25 cases treated by 3,000-3,300 mg. hours; and in 12 of 20 cases treated by 3,400-4,000 mg. hours. In our own cases it will be seen in Table 3 that in 15 out of 60 specimens the carcinoma had been destroyed and that in 22 there was only a small shallow residuum. There was in all specimens an intense superficial caustic effect but great variation in this action in different portions of the cavity, some areas being greatly affected and others almost not at all. All uteri receiving less than 2,000 mg. hours showed persistent carcinoma. Otherwise there was no correlation between the radium dose and the degree of destruction of the carcinoma. Two technics were employed; one was the use of a simple tandem and the other the introduction of separate radium units on the end of spring wires designed to place the individual applicators about one centimeter apart. X-ray photographs of these applicators showed, however, that they did not remain in the locations planned but became in effect broad

single applicators. Packing the uterus with small units of radium has brought about, in the hands of Heyman2 a

great improvement in clinical results, as indicated in Table 4. Prior to 1931 a tandem technic was used in most cases and from 1931 to 1935 the uterus was packed with multiple small units of radium.

It will be seen that there is a 50 per cent improvement in the operable cases and one of 140 per cent in those which were inoperable. It is true that other factors are involved but they are overshadowed by the great improvement which coincided with the change in technic. (1932-1933, 46 operable cases with 54 per cent fouryear survival; 1934, 26 cases, 69.2 per cent; and 1935, 22 cases, 72.7 per cent.) Crossen,13 Arneson, Martin, 4 and Cuscaden and Oddie 15 have used other technics for the same purpose, but the number of cases is as yet too small for generalization.

Mechanical devices to serve the same purpose have been devised by Schmitz,16 Friedman,17 and Strauss, 18 with apparent improvement in results but in numbers again too small for appraisal. We conclude, then, that radium, whether by packing or some mechanical device, must be distributed evenly throughout the uterine cavity to obtain maximum results.

The use of radium in the vagina in cancers of the corpus is of doubtful importance, since the lymphatics from the corpus follow the ovarian vessels. If the neoplasm has invaded the cervix, it presents a different problem and probably should be treated in much the same fashion as is a cancer originating in the cervical canal, in which case radiation alone would be employed without the subsequent hysterectomy.

Improvement in x-ray technic will depend on the employment of higher voltages. dence of superiority of the higher voltage is somewhat scant but encouraging.16 Since the war effort has absorbed the output of manufacturers of these high-powered machines, we must with a few exceptions be content with the maximum to be obtained from the 200-kv. machines.

#### Conclusions

The most important factor in improving the results of treatment for carcinoma of the corpus will be the shortening of the interval between the appearance of the first symptom and the administration of treatment.

The major cause for this delay is the still preva-

lent idea that all cancer is incurable.

Laymen and physicians must be convinced

that at least 75 per cent of patients suffering from carcinoma of the corpus can be cured.

While cancer of the corpus occurs more frequently after the menopause, it must be looked for at any age.

The best treatment for carcinoma of the corpus is a combination of radium, x-ray, and operation. The principles underlying the operation of complete hysterectomy are standardized. The greatest room for improvement lies in the technic of radium application and in the selection of the order in which the three therapies shall be given.

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#### MONTE CASSINO-CRADLE OF WESTERN MEDICINE

Salerno is one of the very few places in the Roman Empire where lingered traces of the arts and sciences of antiquity. We commemorated it as the seat of the first medical school in our issue of September 25 last, when it was occupied by the Allies. . .

The vast monastery on the mountain that overlooks the town has been a centre of learning from its very foundation... here the medical Dark Ages showed a spark of the new spirit. If Salerno connects the Dark Ages with the remote classical past, Monte Cassino represents the dawn of modern times....

In the eleventh century, the greatest period of Monte Cassino, the relations between the civiliza-tions of East and West were the very reverse of those we now know. In our time we have seen Orientals accord to our civilization the sincerest form of flattery. Things were very different then. West knew well that not only military might but also science and learning lay with Islam. Oriental efficiency in arms, in administration, in commerce, as well as in the sciences and arts, had been more than sufficiently proved. The impression that they made on their Western contemporaries is still enshrined in our language in such Semitic words as arsenal, admiral, tariff, algebra, almanac, theodolite, damask, and a hundred others. Not a few of these Semitic terms are medical. . . . anatomical terms such as the names of the basilic, cephalic, and saphenous veins, and, of course, the names of many drugs. The first to convey to the West the substance of knowledge on which Arabic influence was based was one Constantine. He was born about 1020 . . . it is probable that he was a native of Sicily. He acquired his medical knowledge in Jewish circles at Kairouan in Tunisia. Constantine returned about 1072 to Sicily, then passing into Norman possession. There he came in contact with Robert Guiscard. In 1076 Salerno fell to the Normans and became the capital of a Norman principality under Robert. Constantine seems to have arrived at Salerno in his suite and to have acted as his secretary for Oriental languages. Having become a Christian, he retired about 1080 as a monk

to Monte Cassino. There he spent his last years, translating Arabic medical works into Latin. He died in 1087. In the eleventh century the works of the ancient Greek physicians had long been lost in the West. Arabic translations of these existed, as did many works in Arabic based primarily upon them. The knowledge of these was, however, confined to those who could read that language; in other words, so far as the West was concerned, exclusively to Jews. The Arabic superstructure on Greek medicine had profoundly affected the whole outlook of the world of Islam. The advent of Latin translations of these Arabic works caused a similar stirring of the spirit in the West. Thus the writings of Constantine, being the very first of their kind, are of peculiar interest. They consist entirely of translations of Arabic-speaking physicians. Among them were several works of the centenarian, Isaac the Jew (855-955), the great physician of Kairouan. They include his work on fevers, the best of its kind for many centuries, another on diet, and a third on urines, as well as certain of his philosophical writings. There were also works of Isaac', pupel, another down of Kairouan, ibn al-Djezzar (92), 10 c'e, inchalant his Viaticum peregrinantis, a very popular guide to travellers on the care of health. Very important was a version of an extensive work by the Persian Magian, Ali ibn Abbas (died 994), which, oddly enough, was also circulated in the name of Isaac. These works and others of the like kind provided a vocabulary of technical terms, the remains of which can still be traced in our medical nomenclature.

Despite the vicissitudes of the great monastery, there still remain in the library some fourteen hundred manuscripts of great antiquity. A considerable number of these are medical and of the time of Constantine himself. Some are of yet earlier centuries. There is also evidence . . . . that some Anglo-Saxon medical texts that are of the time of the Norman Conquest were prepared at Monte Cassino . . . we rejoice to learn that these most precious documents were long ago removed to a place of safety .- British Medical Journal, Feb.

19, 1944

# CRUDE LIVER EXTRACT AS AN AID TO ARSENO. AND HEAVY-METAL THERAPY

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THIS study includes data on further experiences with the value of crude liver extract\* as a supportive measure in the treatment of patients with histories of previous intolerance to arsenicals or heavy metal, and patients presenting other difficult therapeutic problems. It also includes data on the prophylactic and therapeutic values of liver extract in patients who are intolerant to these drugs, the influence of liver extract on the icterus indices, and untoward reactions due to liver extract injections.

One hundred and fourteen patients were studied. There were 60 patients from the Skin and Cancer Unit of the New York Post-Graduate Medical School and Hospital (service of Dr. Fred Wise), 33 patients from the Metropolitan Hospital and Dispensary (service of Dr. Van Alstyne Cornell). One patient was referred by Dr. Loewenstein and 20 patients were from the author's private practice. Sixty-four patients were females, 50 males. The oldest patient was 62 years of age, the youngest was 7 months.

# Use of Liver as a Supportive Measure in Cases Presenting Difficult Therapeutic Problems (see Table 1)

Among the patients there were 52 presenting some complicating therapeutic problem. most of them no intolerance to any drug could be established at the time. However, because of some systemic disturbances or skin eruptions, or because of histories of previous intolerance to drugs, these patients presented difficult treatment problems. To forestall serious complications, it was decided to administer the drug in question (arsenic or heavy metal), preceded each time by an injection of liver extract.

The results in most of the cases were very gratifying. In 47 cases the drug in question was tolerated and the patients felt very well during the treatment.

Read at the Annual Meeting of the Medical Society of the

State of New York, Buffalo, May 5, 1943.
From the Skin and Cancer Unit, New York Post-Graduate Medical School and Hospital, Columbia University, and Metropolitan Hospital and Dispensary, Welfare Island, New York City.

I wish to express my deep appreciation to Miss Marjorie Mattice for her very fine cooperation in the icterus index study, and to Dr. E. A. Sharp for his valuable information.

I also want to thank Dr. Ludwig Loewenstein for allowing me to include his case in this study, and Dr. Leo Leibovitz for his help in looking up records at the Metropolitan Hospi-

\* Parke, Davis and Company crude liver extract (1/2-1 U.S.P. unit per cubic centimeter) was used in this investigation.

Seven patients gave a history of a previous intolerance to arsenicals (pruritus, dermatitis, urticaria, erythematous and scaly eruption, gastrointestinal disturbances, etc.). No aftereffects developed when an arsenical (2 cases) or bismuth (4 cases) was administered concurrently with liver extract.

Nine cases presented some form of skin eruption such as moderate or severe pruritus, urticaria, seborrheic dermatitis, or erythematous and scaly eruptions. (These eruptions were not related in any way to any intolerance to arsenicals or heavy metals.) All these patients tolerated the arsenicals given concurrently with liver extract.

One case is interesting enough to be cited:

Case 1.—Baby B. had congenital syphilis. The patient was treated with bismuth and mapharsen given in alternate courses. At the age of 4 months the baby developed a generalized vesicular, papular, and pustular eruption following 7 injections of mapharsen. In spite of the fact that the eruption was not considered to be due to mapharsen therapy, mapharsen was discontinued and renewed three months later after a preparatory course of 8 liver injections (1/4-2 cc.) given twice weekly. At that time each injection of mapharsen was preceded by an injection of 2 cc. of liver extract. Mapharsen was well tolerated. The baby, who had not gained weight and at the age of 7 months weighed only 8 pounds 10 ounces, started to gain very rapidly when mapharsen was added to the liver therapy.

Eight of the patients were either elderly people with frail constitutions or patients presenting tabes dorsalis with severe degenerative complications, or those with pulmonary tuberculosis, or younger patients with signs or symptoms of moderate dyscrasia of the hemopoietic system, or those suffering from general weakness, low resistance, malnutrition, and underweight. All these complications presented indications for supportive injections of liver extract.

The patients responded favorably to the therapy. They gained in weight and strength, and all tolerated the arsenicals or heavy metal very well.

Twenty-five cases presented elevated icterus indices (7.9-21.4). Following the injections of arsenicals (13 cases) or heavy metal (12 cases) given concurrently with crude liver extract, the icterus indices decreased in 15 cases, became higher in 5 cases, and remained unchanged in 2 cases; in 3 cases the icterus indices decreased only after a course of liver injections were given. Only in 5 cases out of 25 was the arsenical or heavy metal discontinued because of the increased icterus indices.

Five cases of lupus erythematosus were treated with bismuth supported by liver extract because of

TABLE I —Use of Liver as a Supportive Measure in Cases Presenting Difficult Therapeutic Problems

				<u></u>
Number of Cases	Reasons for Using Liver	Number of Cases Which Tolerated Arsenical with Help of Liver	Number of Cases Which Tolerated Bismuth with Help of Liver	Results of Treatment
7	Cases with a history of intolerance to some ar- senical in the past	3	4	Tolerated the injected drug well
9	Cases with a generalized or localized skin eruption with moderate or severe pruritus (erup-			Tolerated the injected arsenical well
	tions not related to in- tolerance to arsenicals or heavy metal)	9		
18	Old age of patients, general weakness, low resistance, underweight, anorema, anemia	9	9	Tolerated the injected drug well, Patients felt stronger. Some gained weight. In some cases anemia improved
25	Cases with high icterus indices (7.9-21.4)	13	12	20 patients folerated the injected drug well. When the arsenicals or heavy metal were used with liver extract, the interior indices decreased in 15 cases; remained unchanged in 2 cases, and increased in 5 cases. In 3 cases the interior indices decreased when liver extract was given alone
5	Lupus erythematosus (general weakness, or changes in the hemo-			Tolerated the injected drug well
	poietic system, or high icterus index)	1	4	
2 2	Hepatitis	1	1	Tolerated the injected drug well Leukopenia somewhat improved
2	Leûkopenia (white blood cells 4,200, 4,850) General weakness	1	1	in both cases, arsenical had to be discontinued in one case be- cause the anemia became worse

the patients' anemia or high interus indices or general weakness. The results were good Two cases of leukopenia (white blood cells, 4,200 and 4,850) were observed. The patients felt well and the leukopenia improved somewhat following the injection of the arsenical or bismuth. In one case, however, the arsenical had to be discontinued because of the slight aggravation of the concomitant anemia. Two cases of hepatitis were observed. In both, the supportive liver therapy was of great help. One case is important enough to be cited:

Case 2.—C. S., a man aged 56, presented late syphilis of the tongue, asymptomatic neurosyphilis,

TABLE 2 —VALUE OF LIVES EXTRACT IN THE PREVENTION OF MANIFESTATIONS OF INTOLERANCE TO ARRENICALS OR HEAVY METALS

Total number of cases observations of improved cases. Number of unimproved cases Number of cases which have ment	s	ome in	1	8 9 (50%) 2 (32%) 7 (18%)
Subdivision According to			Some	
C			Improve-	
Signs of Intolerance	Total p	or ea	ment	proved
Gastrointestinal disturb-				
ance, fever, headache,				
nausea, vomiting, diar-				_
thea, weakness, numb-	25	15	4	6
ness				
Aitritoid crises	1			1
Pruntus without visible	-		2	•
skin manifestations	4	2	Z	3 1
Pain in the bones, joints	1			1
Localized erithems with		_		_
or without scaling, urti-	4	2	1	1

hypertension, and hepatitis. Because of the involvement of the cerebrospinal fluid, it was considered advisable to use an arsenical regardless of the hepatitis. Mapharsen was instituted in dosages from 5-40 mg, concurrently with liver extract. The patient felt very well during treatment. The pain in the right side of the abdomen became less pronounced. Following 13 mapharsen and 13 liver extract injections, the icterus index remained normal (5-5-4). The blood count was found to be normal. The patient felt well while receiving 30 mg. of mapharsen; however, when the dosage reached 40 mg. he began to feel weak; the dosage had to be reduced to 30 mg. He is still under treatment.

# Value of Liver in the Prevention of Manifestations of Intolerance to Arsenicals and Heavy Metal (see Table 2)

The prophylactic value of liver extract injections in cases intolerant to arsenicals and heavy metal was studied by various investigators. <sup>1-6</sup> I became interested in this problem at Sulzberger's suggestion in 1936, and since then all forms of intolerance to arsenicals and heavy metal have been observed. The results of these studies were reported. <sup>8,9</sup> According to Wise and Sulzberger, <sup>10</sup> "both liver injections and administration of large doses of vitamin C now seem worthy of trial in attempts to prevent unpleasant or dangerous allergic sequelae from arsenicals in patients who absolutely require the continuation of intensive antisyphilitic therapy." Recently Chamelin and

Funk<sup>11</sup> reported that simultaneous administration, to animals, of liver extract with sulfanilamide or diethylstilbestrol diminishes the toxicity of the latter two drugs.

In the present investigation 38 cases of intolerance to arsenicals and heavy metal were studied. These patients underwent a physical examination, including a complete blood count, icterus index, and urine tests, as soon as the characteristic manifestations of intolerance were noticed. The next step and the method of using liver as a prophylactic measure depended on the laboratory findings, the kind and form of intolerance, and the general condition of the patient.

Two methods of liver therapy were used. In one group, (22 cases) as soon as the condition of the patient permitted it, the injection of the offending drug in the same or smaller dosage, was repeated the following week or later. Fifteen minutes before this an injection of liver extract (1/2-5 cc.) was given. If the symptoms of intolerance reappeared after this treatment and were as pronounced as previously, the drug in question was dropped completely or discontinued temporarily. If the symptoms of intolerance were ameliorated or absent after this treatment the offending drug (in increased dosage) was readministered the next week, preceded by a liver extract injection. In this manner a full course of the drug would be given (dosage gradually increased until the regular dosage was reached), preceded each time by an injection of liver extract.

The second group (16 cases) included patients in whom the first method of administration of liver injections did not prevent or ameliorate the patients' intolerance to the drug, or those patients in whom the manifestations of intolerance were so important that the offending drug was discontinued temporarily, and a preparatory course of liver extract injections (average about 10 injections) instituted; the injections were given once or twice a week. On completion of this course, the offending drug was readministered and given in the same way as in the first group, each time preceded by a liver extract injection. In some cases additional liver injections were given once or twice weekly.

The results of the investigation of the prophylactic value of liver extract are given in Tables 2, 3, 4, and 5.

I used the term "improved" and "some improvement" in the same way as in the previous investigation. "Improved" cases were those in which the intolerance disappeared or was ameliorated sufficiently to allow me to continue the use of the offending drug in the same or even in gradually increased dosages. "Some improve-

ment" meant the changes either in those cases in which the intolerance was ameliorated very slightly or in those cases in which the amelioration of the intolerance lasted only a short time. The patient then became sensitive again to the offending drug.

Various forms of intolerance were observed (see Table 2).

Gastrointestinal Disturbances.—This group included 25 cases which developed immediately or within twenty-four hours, one or a combination of several of the following symptoms, fever (lasting for several to twenty-four hours), headache, dizziness, nausea, vomiting, weakness, numbness, diarrhea, high icterus index. Patients in this group showed a definite improvement in 15 out of 25 cases (60 per cent).

The following case is reported as an illustration:

Case 3.-Mrs. L. W., aged 36, was referred by Dr. Loewenstein with the history of chills and high fever (103 F.) following each injection of mapharsen (dosage 18-25 mg.). After the complete blood count, icterus index, and urine were found to be normal, mapharsen was readministered (dosage 6 mg.), preceded by 2 liver extract injections (1-2 cc.). The patient developed a slight fever the same day. Mapharsen was discontinued and a preparatory course of liver extract given (6 injections 2-4 cc., twice a week). Following that, mapharsen (6 mg.) was renewed, preceded by 4 cc. of liver extract; no aftereffects developed. After that mapharsen in gradually increased dosages (weekly increase 4 mg.) was given every week for ten weeks. The maximum dosage of mapharsen reached was 371/2 mg. The injection of mapharsen was preceded each time by an injection of 4 cc. of liver extract: an additional liver extract injection was given every

The patient tolerated all the injections of mapharsen well, and developed a slight reaction (weakness) only when the dosage of mapharsen reached 37½ mg. According to Dr. Loewenstein, 12 the patient received several courses of mapharsen after that, accompanied by liver extract without any aftereffects.

It is noteworthy that the only 2 cases of diarrhea in this group were not prevented by liver extract injections.

Nitritoid Crises.—One case was observed. The patient developed a nitritoid reaction in December, 1940, following an injection of 2 mg. of tryparsamide. In March, 1943, in spite of the prophylactic liver therapy, the patient developed another nitritoid reaction following an injection of 1.5 mg. of tryparsamide.

Pains in the Bones and Joints.—One case was observed; a general aching in the bones and joints developed following an injection of bismuth salicylate in oil. The same reaction occurred in spite of a preceding liver extract injection.

Pruritus Without Visible Skin Manifestations.— Seven cases were observed (5 treated with arsenicals, 2 with bismuth). Additional liver extract injections were given in one case only. Two cases improved. There was a slight amelioration of the symptoms in two other cases. Three cases did not show any improvement whatever.

Localized Erythema With or Without Scaling or Urticaria.—Four cases were studied (3 treated with mapharsen, one with mapharsen and bismuth). The eruptions were very mild in character. In one case the prophylactic injections of liver extract did not produce any changes in the patients' hypersensitivity to the arsenical. Some improvement could be noticed in the second case. In two other cases the results could be classified as "improved." One of the cases merits citation:

Case 4.-F. C., a woman aged 28, had early syphilis. Following an injection of 15 mg. of mapharsen, the patient developed "stiffness and swelling of the knees and elbows; she could not bend her fingers. She felt very weak, her heart was pounding and she could not catch her breath." Mapharsen was discontinued and bismuth instituted. After the fourth injection of bismuth, the patient developed an urticarial eruption. The next week bismuth was readministered, preceded by liver extract. Urticaria did not reappear. Eight weeks after the reaction to mapharsen, after the patient had received 10 liver extract injections (given concurrently with bismuth), mapharsen was readministered (5-30 mg. in gradually ascending dosages), preceded by liver extract; no reaction occurred. Altogether the patient received 52 mapharsen and 47 bismuth injections (preceded by liver) without any aftereffects.

In this series it is difficult to interpret the exact relationship between the liver injections and the changes in the hypersensitivity to the arsenicals. It is undoubtedly possible that these changes occurred spontaneously and were only coincidental with the liver administration. However, the time factors also have to be considered and these (five weeks' average) speak somewhat in favor of the beneficial effect of liver therapy.

## Relationship of the Methods of Administration of Liver to the Results Obtained in the Prevention of Intolerance to Arsenicals and Heavy Metals (see Table 3)

In all the cases in which liver was used as a prophylactic measure, the liver injections were given about fifteen minutes before the injection of the arsenical or heavy metal. In 16 cases, however, the patients received additional liver injections in the form of a preparatory course given prior to the renewal of the offending drug, or in the form of additional liver injections given

TABLE 3.—Relationship of the Method of Administration of Liver to the Results Obtained in the Prevention of Manifestations of Intolerance to Arsenicals and Heavy Metals

,	Preceded by Liver Extract Each Time	Preceded by Liver Extract Each Time and Additional Liver Given
Total number Improved Unimproved Some improvement	22 10 (45%) 8 (36%) 4 (18%)	16 9 (56%) 4 (25%) 3 (19%)

once or twice a week. There were more improved cases among these 16 (56 per cent) than among those which did not receive additional liver injections (45 per cent). On the other hand, there were fewer unimproved cases in the first group (25 per cent) than in the second group (36 per cent). In one patient, Mrs. W. L., after the mapharsen was readministered preceded by a liver injection, the results obtained showed "some improvement" only. However, after the patient received a preparatory course of liver extract (8 injections) and additional liver injections once a week, the results obtained were very good; the patient could tolerate the mapharsen well.

# Relationship of the Readministered Dosage to the Results Obtained in the Prevention of Intolerance to Arsenicals and Heavy Metals {see Table 4}

In 13 cases it was considered safer to readminister the offending drug with a smaller dosage at the start, and gradually increase the dosage until it was as large as or even larger than that at which signs of intolerance had previously appeared. The percentage of unimproved cases was smaller in this group (8 per cent) than among those (44 per cent) in which the read-

TABLE 4,—Relationship of the Readministered Dosage to the Results Obtained in the Prevention of Intolerance to Aresnicals and Heavy Metals

	Smaller Dosage Readministered	Same Dosage Readministered
Total Improved Unimproved	13 7 (53%) 1 ( 8%)	25 12 (48%) 11 (44%)
Some improvement	5 (39%)	2 (8%)

TABLE 5.—Relationship of the "Time Factor" to the Results Obtained in the Prevention of Manifestations of Intolerance to Arsenicals and Heavy Metals

Time Factor 1-2 weeks 3-10 weeks More than 10 weeks	Total Number 19 13 6	Improved 9 (47%) 7 (54%) 3 (50%)	Some Improve- ment 3 (16%) 3 (23%) 1 (16%)	Un- improved 7 (37%) 3 (23%) 2 (34%)
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TABLE 6.—Value of Liver Extract in the Treatment of Existing Manifestations Due to Intolerance to Arsenicals or Heavy Metals

Generalized dermatitis or exu-	Improved	Slight Improvement	Unimproved	Average Number of Liver Injections	Average Duration of Manifestations Before Liver Therapy	Average Duration of Treatment with Liver
dative crusted dermatitis	2	1	••	9	14 weeks	5 weeks
Erythematous and scaly erup-	1	1		7	8 weeks	6 weeks
Pruritus without visible skin manifestations	• •	1	1	12	10 weeks	11 weeks
High icterus index	18	••	i	îī	8 weeks	11 Weeks

ministered dosage was the same as that which had been previously followed by signs or symptoms of intolerance.

# The "Time Factor" [see Table 5]

By this term is understood the period of time which elapsed from the moment the symptoms of intolerance appeared to the moment the same arsenical was readministered, supported by liver injections (provided the manifestations of intolerance had subsided sufficiently to permit the readministration of the arsenical). The study of the relationship between the "time factor" and the apparent diminution of intolerance in cases following the administration of liver therapy was warranted by the well-known fact that hypersensitivity in any case and to any drug may spontaneously decrease and even disappear entirely as time passes.

The smallest percentage of improved cases (47 per cent) was seen in the first group with the shortest "time factor" (one to two weeks). The largest percentage of improved cases (54 per cent) was among those in which the time factor was three to ten weeks (see Table 4).

Quite unexpectedly, the percentage of improved cases in the third group, with the longest time factor (more than ten weeks), was smaller (50 per cent) than in the second group. These paradoxic results could possibly be explained by the fact that 4 out of 6 cases in this group were cases of skin manifestations or nitritoid reactions, conditions which responded to the prophylactic injections of liver extract less readily than cases with gastrointestinal reactions.

# Value of Liver Extract in the Treatment of Existing Manifestations Due to Intolerance to Arsenicals or Heavy Metal [see Table 6]

This problem was thoroughly investigated by Spiethof, <sup>13,14</sup> Milbrodt, <sup>15</sup> Fulst and Fellner, <sup>16</sup> and others, <sup>17,18</sup> and they found liver extract injections of great help in the amelioration of symptoms of arsphenamine-toxic cases. Stokes <sup>19</sup> also advises the use of liver extract in arsphenamine dermatitis. Abramowitz <sup>20</sup> states that he has used crude liver extract for the management of

eruptions from various drugs and he has found it more beneficial than other methods of treatment. Gross<sup>21</sup> suggests "that certain types of arsphenamine dermatitis respond particularly well to liver therapy because they represent instances of vitamin B complex deficiency, caused by the direct effect of the drug on specific functions of the liver." Epstein, <sup>22</sup> on the other hand, prefers 10 per cent dextrose to liver extract injections in cases of postarsphenamine exfoliative dermatitis. From previous investigations, <sup>8,9</sup> the impression was gained that liver extract is a useful therapeutic agent in some patients suffering from manifestations due to intolerance to arsenicals and heavy metals.

In the present investigation, liver extract as a therapeutic agent was used in 26 cases (see Table 6). Some patients began to have liver injections soon after the aftereffects appeared. Others began to receive liver therapy only after other methods of treatment failed. The injections of liver extract were given one to three times weekly. The average course of injections consisted of about ten to fifteen. The initial dosage was ½ cc., which was gradually increased to 4-5 cc. With the exception of a few cases, all patients felt better mentally and physically, after only a few injections were given. The patients gained in strength and the signs of intolerance gradually disappeared.

Three cases of generalized arsenical dermatitis were observed. One showed a slight improvement only, while the other two responded promptly to therapy. One of these patients, D. A., a man aged 37, presented a dermatitis of six months' duration. The patient could not sleep at night because of intense itching. After the fourth injection of liver extract he stated that "he had great relief, does not itch any more, eats better, and sleeps better."

Two cases of erythematous and scaly eruptions were observed. One of these followed the injection of mapharsen, and cleared up in eight weeks following 8 injections of liver; the other case, which developed following bismuth therapy, showed a slight improvement after six weeks of therapy.

TABLE 7.—Changes in the Icterus Indices Following Liver Extract Injections

Name	Interim Between Discontinuation of Treatment and Icterus Index Test	leterus Index Before Liver Therapy	Number of Liver Injections Given	Icterus Index After Liver Therapy	Changes in the Icterus Index Following Liver Therapy
P. M.	I week after neoarsphenamine	18.6	12	7.9	-10.8
L. A.	I week after arsenical No. 1	12.5	8	10.0	~ 2.5
A. V.	4 months after bismuth	s.s	15 10	5.0	- 3.8
S. J.	I week after bismarsen	10.7	10	6.2	- 4.5
G. S.	14 months after mapharsen	13.6	14	8.3	- 5.3
H. G.	3 weeks after iodobismitol	13.6	10	9.3	4.3
G.S.	No previous treatment	10.7	15	5.7	- 5.0
B. T.	2 weeks after neoarsphenamine	9.3	10 15 12 14 8 15 6	7.9	- 1.4
M. W.	10 weeks after bismuth	10.7	14	7.9	-2.8
м. м.	1 week after arsenical No. 1	15.0	ំន្	6.0	- 9.0
B. J.	3 weeks after iodobismitol	21.4	15	16.7	- 4.7
K. I.	1 year after bismuth	7.9	, b	4.6	- 3.3
S. H.	I would week attack	13.6	10	8.3	- 5.3
S. A.	1	13.6	10 12	8.8 7.1	- 4.8
N. S.	4	13.6 8.0	10	6.0	~ 6.5
Ç. M.	2 weeks after mapharsen		12		- 2.0
W. B.	No previous treatment	11.5 8.8	10	8.8 15.0	- 2.7
M. S. H. W.	1 week after iodobismitol	10.7	10	7.9	+ 6.2
w. s.	I week after arsenical No. 1	12.0	11	4.7	- 2.8
W. S. M. P.	5 days after mapharsen 8 months after bismuth	8.3	, 1 <u>1</u> 9	6.2	- 7.8
R. N.	21 years after arsphenamine	10.7	9	5.7	- 2.1 - 5.0
44. 34.	ri Jenia aitei aispuenamme				J.U

Two cases of pruritus which followed the injection of bismuth responded quite poorly to liver therapy (average number of injections, 12). In one case there was no improvement whatever. In the second there were signs of a slight improvement only.

Among this group there were 19 patients who had a high icterus index (8.0-21.4) following the injections of arsenicals or heavy metals. In 18 of these cases the icterus indices decreased (average decrease 4.5) following an average of 10.8 liver injections. In one case the icterus index increased following liver therapy.

One patient developed an icterus index of 15 and leukopenia (white blood cells 4,850; red blood cells 3,080,000) following an injection of an arsenical. The condition improved in twelve weeks.

TABLE 8.—Changes in the Icteeus Indices Following Liver Therapy (Analysis of Table 7)

(Analysis of Table 1)	
Number of cases studied	22
Number of cases in which the icterus indices increased following liver therapy	1
Number of cases in which the icterus indices decreased following liver therapy	21
Average decrease in the icterus indices following liver therapy	4.5
Average number of liver extract injections given in the improved cases	10.8
Mumber of cases in which the iterim between the dis- continuation of arseno- or heavy-metal therapy and the taking of the icterus index test was 5 days to 3 weeks	12
Average decrease of the icterus indices following liver therapy Number of cases in which the interim between the dis-	4.9
therapy and 10–56 weeks illowing liver	6
therapy , Number of cases in which no arseno- or bismuth ther-	4.0
apy was administered prior to the taking of the ic- terus index test (in one case arsphenamine was given 21 years ago)	3

Average decrease of the icterus indices following liver

4.2

therapy

Changes in the Icterus Indices Following Liver Extract Injections (see Tables 7, 8, 9, and 10)

In a previous investigation<sup>8</sup> an opinion was expressed that liver extract injections may cause the decrease of the icterus indices of slightly damaged livers and thus help the liver to return to its normal functioning. Because the number of cases studied in the previously mentioned investigation was too small (21) to draw any conclusions, I decided to follow up this problem on a larger number of cases, studied under different conditions.

Sixty-nine cases were observed and divided into three groups. In the first group (22 cases see Tables 7 and 8) I was dealing with patients who were receiving liver extract injections given alone. The interim between the discontinuance of the arsenical or heavy metal and the taking of the icterus index was noted. Icterus indices were done before a course of liver injections was instituted, and repeated immediately or shortly after the completion of the course. While the patients were under liver therapy, they did not receive any other medications (orally or parenterally). Nor were they asked to adhere to any special diets, such as are usually advised in cases suspected of liver dysfunction. In other words, if following liver extract injections, the icterus index showed some decrease, this could be attributed either to spontaneous improvement of liver function following the discontinuance of the offending drug, or to the influence of liver extract injections.

Following liver therapy the icterus indices decreased in 21 out of 22 cases; the average decrease was 4.5 units. Among these 21 cases there

TABLE 9.—Changes in the Icterus Indices Following Liver Therapy Given Concurrently with Arsenicals or Heavy Metals

Total number of cases in which liver therapy was given concurrently with arsenical Number of cases in which the icterus indices in- creased following the combined therapy	23
Average number of injections of arsenicals and liver extract given Average increase in the icterus indices Number of cases in which the icterus indices de-	6.8 3.3 units
creased following the combined therapy Average number of arsenicals and liver extract given	13 8.3
Average decrease in the icterus indices  Total number of cases in which liver therapy was	2.1 units
given concurrently with heavy metal Number of cases in which the icterus indices in- creased following this combined therapy	24 3
Average number of injections of bismuth and liver extract given Average increase in the icterus index Number of cases in which the icterus indices de-	11.0 5.4 units
creased following this combined therapy Average number of injections of bismuth and	21
liver extract given Average decrease in the icterus index	16.4 4.1 units

were 12 in which the liver therapy was instituted five days to three weeks after the arsenical or heavy metal in question was discontinued. The average decrease of the icterus indices in these cases was 4.9.

In 6 cases the interim was between ten to fiftysix weeks. The average decrease of the icterus indices was 4.0. We can see that the decrease in the icterus indices was influenced slightly by the length of time which elapsed between the discontinuance of the drug and the institution of liver therapy. Spontaneous decreases in the icterus index may occur within the first few weeks after the arsenical or heavy metal is discontinued. The spontaneous factor, however, could hardly play a role in cases in which ten-fifty-six weeks passed between the discontinuance of the offending drug and the institution of liver therapy, and I may therefore say, with a fair degree of certainty, that the decrease in the icterus indices in these cases was caused chiefly by the liver therapy.

In 3 cases (2 in which no arsenical or heavy metal was ever given and one in which the arsphenamine was given twenty-one years ago), the decrease (4.2) in the icterus indices was undoubtedly caused by liver extract injections.

In the second group (47 cases—see Table 9) the study was confined to changes in the icterus indices following liver therapy given concurrently with arsenicals or heavy metals. In 23 cases the liver extract was given concurrently with arsenicals. In 13 out of these 23 cases (56 per cent) the icterus indices decreased following an average of 16.4 injections of bismuth given concurrently with liver extract.

Arsenicals and heavy-metal injections may not cause any damage to the liver, but it could hardly be assumed that they would improve the function of the liver (except in rare cases of hepatitis). It would be logical to infer, therefore, that the decrease in the icterus indices following arseno- or heavy metal therapy given concurrently with liver extract injections was due primarily or solely to the injections of liver extract.

The beneficial effect of liver extract on the functions of the liver is illustrated in Table 10, presenting the changes in the icterus indices following injections of arsenicals or heavy metals

TABLE 10.—Table Illustrating the Changes in the Icterus Indices Following Injections of Arsenicals on Heavy Metals Without or with Liver Therapy

	Icterus Index	Number of Liver Injections Given	Icterus Index After Therapy	Concurrent Treatment	Changes in the Icterus Index Following Therapy
Name	Before Therapy	· •		4 - () N- 1 (10)	+1.2
V. F.	7.1	.0	8.3	Arsenical No. 1 (10). Arsenical No. 1 (10)	<u>-1.7</u>
	10.0	10	8.3	Bismuth (15)	+2.1
S. H.	11.5	'õ	13.6	Bismuth (15)	+1.7
	8.3	15	10.0 10.0	Bismuth (8) + mapharsen (2)	+2.5
O. J.	7.5	Ŏ.	7.5	Mapharsen (9)	-2.6
	$\substack{10.1\\4.3}$	0 9 0	8.8	Arsenical No. 1 (3)	+4.5
H. W.	$\frac{4.3}{7.9}$	10	7:9	Arsenical No. 1 (10)	No change
37 O	0.0	10	13.6	Arsenical No. 1 (4)	+4.8
N. O.	8.8 9.3	ž	10.7	Arsenical No. I (3)	+1.4
~ 1	6.8	Ò	10.0	Arsenical No. I (3)	+3.2
S. A.	6.8 7.9	ă	5.4	Arsenical No. 1 (4)	$\frac{-2.5}{+7.7}$
- T	4.8	Õ	12.5	Arsenical No. 1 (4)	-7.9
в. J.	12.5	6	4.6	Iodobismitol (6)	+7.1
M. M.	7.9	Ŏ	15.0	Arsenical No. 1 (4)	$\pm 1.9$
171. 171.	6.0	4 0	7.9	Arsenical No. 1 (4)	+0.7
P. J.	6.0 7.1		7.8	Iodobismitol (11)	-2.3
F. J.	8.8	11	6.5	Silver salvarsan (10) Dichlormapharsen (3) + bis-	+3.2
G. I.	8.8 7.5	0	10.7	muth (10)	
G. 1.	_			Dichlormapharsen (5)	-1.4
	10.7	4 0	9.3	Iodobismitol (15)	+1.4
s. N.	9.3	20	10.7	Iodobismitol (30)	-5.4 + 2.0
D, -11	10.7	30	$\substack{5.3 \\ 10.0}$	Bismuth (5)	T4.0
G. Y.	8.0	ğ	6.0	Bismuth (5)	+2.5
	10.0	å	8.3	Manharsen (10)	$-\tilde{0.7}$
	5.8 7.5	0 5 0 10	6.8	Mapharsen (10)	
	7.5	<b>AU</b>	0.0		

TABLE 11.—Illustrating the Changes in the Icterus Index Following Liver Therapy (Relationship Between the Changes in the Icterus Index and the Changes in the Yellow Color Due to Bilirubin)

	Icteru Liv	s Index E er Thera	Sefore py			ıs Index . er Thera			Ch
Name	Icterus Index	Yellow Color Due to Caro- tin	Yellow Color Due to Bili- rubin	Number of Liver Injections Given	Icterus Index	Yellow Color Due to Caro- tin	Yellow Color Due to Bili- rubin	Changes in the Icterus Index After Liver Therapy	Changes in the Yellow Color Due to Bilirubin After Liver Therapy
M. P. G.I.	8.7 10.7	$\frac{2.0}{2.5}$	6.7 8.2	12 5 + 5 Dichlormapharsen	$\substack{7.5\\9.3}$	$\frac{4.3}{3.4}$	3.2 5.9	$-1.2 \\ -1.4$	$-3.5 \\ -2.3$
R. N. K. I. M. P. C. I. C. I. M. S. H. G.	10.7 7.9 8.3 13.6 12.5 8.3 11.5	0.5 2.7 6.0 3.6 2.5	10.2 5.9 4.6 7.6 8.9 6.3 9.0	9 6 6 9 3 9 8	5.8 4.2 12.5 5.8 7.5	4.1 2.0 3.3 3.6 1.9 3.5 4.6	1.6 2.9 8.9 3.6 5.3 2.9	-5.0 -3.3 -2.1 -1.1 -7.0 +0.5 -4.0	-8.6 -3.3 -1.7 +1.3 -5.3 -1.0 -6.1

with or without liver therapy. In this third group (composed of cases belonging to the first two groups) the icterus index changes in cases treated with some arsenical or heavy metal (without liver) were noted. Thereafter, the same arsenical or the same heavy metal, and whenever possible, the same number of injections, were given concurrently with liver extract, and the changes in the icterus indices were again noted. The differences in the changes of the icterus indices were then observed. cases were studied. In 9 out of these 13 cases the icterus indices increased when the arsenicals or heavy metal were given without liver. icterus indices decreased in the same nine cases when the same arsenical or the same heavy metal was given with the help of liver. In two cases the icterus indices increased, whether liver was given or not. The increase, however, was more pronounced when no liver was given. In one patient (S. H.) the increase of the icterus index was about the same whether liver was given or not. In another patient (H. W.) the icterus index increased when arsenical No. 1 was given without liver, and remained unchanged when the same arsenical was given concurrently with liver.

We may see from Table 10 that liver extract injections in 12 cases out of 13 caused the decrease or prevented a pronounced increase of the icterus indices of patients treated with arsenicals or heavy metal.

In order to determine which component of the icterus index is influenced by liver therapy, special icterus indices were done at the suggestion of Miss Mattice<sup>23</sup>—namely, splitting the icterus index into yellow color due to carotin and yellow color due to bilirubin. The results obtained in 9 cases are illustrated in Table 11.

Out of 8 cases in which, following liver extract injections, the icterus index showed a decrease, 7 presented at the same time, a decrease in the yellow color due to bilirubin. It is also noteworthy that the average decrease in the yellow

color due to bilirubin (4.4) was more pronounced than the decrease of the entire icterus index (3.4) (carotin + bilirubin). If further study on more cases will confirm these findings, that factor will be an additional proof that when liver extract injections are followed by decreases in the icterus indices, these liver injections are improving the function of the liver.

#### Untoward Reactions

Most of the investigators stress the very small number of after-effects following liver extract injections, 9.24-26 However, as time goes on and the use of liver extract becomes more popular, reports on untoward reactions will be forthcoming more frequently.

Some authors reported cases which developed angioneurotic edemas,27 urticarias,7.28-30 genererythema,31,32 attacks alized of bronchial asthma,33-35 sudden weakness36,37 (fainting, sweating, diarrhea, dyspnea) pruritus,28 uterine bleeding, 38 etc. A fixed eruption following the injection of crude liver extract was observed.21 The same author tells of his experience with a case of mycosis fungoides, in which a flare-up of the lesions occurred each time after an injection of liver extract. Some authors speak of moderate pain following the injection of liver. In some cases the local reaction lasted for almost one week.23 A case is also mentioned36 of a patient who had no trouble with one kind of liver extract but when another form was used a severe urticaria developed.

It is believed that "there are two types of reactions, one of an allergic nature, the other probably attributable to vasodepressor substances not well defined chemically."<sup>23</sup>

Most of my patients tolerated the injections of liver extract except for slight and transient pain and discomfort at the site of the injection.

It is noteworthy that 4 of the patients who were pregnant received the antisyphilitic therapy concurrently with liver extract without any ill effect on either the patients or the course of their pregnancies.

However, five of my patients developed untoward reactions which are noteworthy. One patient developed nausea after each injection of liver. It had to be discontinued. Another patient, following an injection of 3 cc. of liver extract, complained of sudden dizziness. weakness, tendency to faint, and pain in the left side of the chest. The patient recovered in five minutes. A week later he received a smaller dosage of liver extract without any after-effects, and continued to receive weekly injections in gradually ascending dosages without any reaction. A third patient who tolerated crude liver extract developed palpitation of the heart and general weakness when another form of liver extract was given by mistake, and the last patient complained each time of a very severe local pain lasting more than twenty-four hours, following the intramuscular injection. Because of that the intravenous method of administration was instituted in this case.

# Intravenous Administration of Crude Liver Extract

Local pain following the intramuscular method of injecting liver extract is a quite frequent occurrence. Although it does not last very long in the large majority of the cases, occasionally, however, it may cause considerable discomfort to the patient. It may be especially distressing for nervous and apprehensive patients, who will refuse to submit to an intramuscular injection, There are also some patients who require supportive medication who present many scattered, deep, indurated areas of connective tissue scars in the buttock, aftereffects of numerous intramuscular injections of heavy metal. In all these instances the intravenous route of administration of liver extract is indicated. This method was suggested to me in 1938 by Dr. E. A. Sharp.<sup>39</sup> Twenty-six of my patients received an average of 14 injections of liver extract given intravenously. Except for a mild flushing of the face and shortness of breath, which lasted for not more than fifteen to thirty seconds, patients did not show any signs of discomfort. In one case a patient developed a moderate attack of herpes zoster after 6 intravenous injections of liver extract were given. Whether the herpes zoster was caused by the injection of liver or was coincidental with it is difficult to determine. As a matter of precaution the dosage of liver extract used was small at the start ( $^{1}/_{4}$  cc.) and the dosage was gradually increased until 3 cc. was reached. After that a dose of 3 cc. was given once or twice weekly. The injections were given very slowly (three to four minutes), and by this means the flushing of the

face and the shortness of the breath were prevented or ameliorated.

### Comment

The value of crude liver extract in 114 cases treated with arsenicals or heavy metals was studied. It seems to me that the usefulness of liver extract as a supportive measure in cases presenting difficult therapeutic problems was fairly well established in this study. Out of 52 cases with different kinds of systemic disturbances, previous history of intolerance to drugs, skin eruptions, and other complicating conditions, 47 tolerated the arsenicals or heavy metals well, with the help of liver, and gained in strength under therapy.

Although the question of the prophylactic value of liver extract is still uncertain, I feel that liver extract may, in some cases, prevent manifestations due to intolerance to arsenicals or heavy metal; 50 per cent of the cases showed improvement. Even if we admit the possibility of spontaneous change in the hypersensitivity in a certain number of cases, this factor could hardly explain the improvement in some cases with a "time factor" of one to two weeks.

The best results were obtained in cases which received the largest number of liver extract injections (56 per cent improvement) and also in cases in which the offending drug was readministered with a smaller dosage (53 per cent improvement). It is also noteworthy that in some cases with initial failures several attempts had to be made and more liver injections had to be given before the patients' hypersensitivity improved.

The majority of my cases presenting existing manifestations due to intolerance to arsenicals or heavy metal showed improvement following liver therapy. The impression gained in the previous investigations that liver extract injections exert a beneficial effect on the function of the liver was fully confirmed in this investigation. The icterus index changes following liver therapy were observed in 69 cases. In the great majority of these cases a decrease in the icterus indices following liver extract injections was noticed. And, I may add, in my opinion the decreases in most of these cases were due primarily to the liver extract injections.

Because the chief importance of the liver lies in its detoxifying ability, 6,15,39 any drug which tends to impair the liver inhibits its detoxifying action, and as a result, intolerance to one or several drugs may develop. 15,18 On the other hand, liver extract injections while improving the impaired function of the liver, 4,17,40,41 will also increase its detoxifying ability, and as a result the intolerance to the drugs may decrease,

and, in addition, the manifestations due to this intolerance may improve.

No special study of the influence of liver extract on the blood counts was made, because its regenerative influence on the hemopoietic system was fairly well established in the previous investigation8,9 and it is a generally accepted fact.1,4,39 It is suggested that the beneficial effect of liver extract injections on the function of the liver and its detoxifying ability, together with the beneficial effect of liver extract on the blood count, will explain the value of liver extract injections as a supportive measure in cases receiving arsenicals or heavy metal, especially in those cases presenting difficult therapeutic

Very few reactions were observed in this series. However, cases of intolerance to liver extract are reported in the literature. Because of that it is advisable to be very cautious when administering liver extract injections. These should be started with a small dosage and increased gradually until the desired dosage is reached. While the dosage is of no importance in a reaction due to true allergy, "the reactions due to liver extract containing vasodepressor substances might be entirely prevented by limiting the amount administered at any time."33 It is also advisable to use one kind of liver extract throughout the entire course. In some cases when the local pain is very intense, the intravenous method of administration of liver extract may be used. However, the injections should be given very slowly in order to avoid any complications.

# Conclusions

- 1. The results of the investigation of the effect of injections of crude liver extract as an aid to arseno- or heavy-metal therapy in 114
- Crude liver extract is a useful supportive measure in cases presenting difficult therapeutic problems.
- 3. Crude liver extract may be useful in the prevention of some manifestations due to intolerance to arsenicals or heavy metal, especially in cases of gastrointestinal disturbances (improvement in 60 per cent of the cases). A few cases with pruritus and mild skin manifestations were also benefited by liver therapy.
- Crude liver extract is a useful therapeutic agent in some cases presenting manifestations due to intolerance to arsenicals or heavy metals.
- 5. The investigation of the prophylactic effect of liver extract indicated that the best results were obtained in cases which received the largest number of liver extract injections.
- 6. The results of the investigation indicate

that liver extract injections cause a decrease of the icterus indices and thus improve the impaired function of the liver in most of the cases.

7. This beneficial effect of liver extract injections on the function of the liver and its detoxifying ability, together with the beneficial effect of the liver extract on the blood counts, explain the usefulness of liver extract injections in cases receiving arsenical or heavy-metal

8. Although very few reactions were observed by the author, special caution must be observed in administering liver extract injections. In some cases the intravenous method of administration may be used.

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#### Discussion

Paul Gross, M.D., New York City—Dr. Astrachan has undertaken a difficult but important job in trying to find a rational method for preventing and treating arsphenamine reactions.

The variety of reactions encountered and the lack of knowledge still prevalent concerning their exact mechanism explain why even the data resulting from years of accurate work like those presented here, are still not fully convincing. I believe it is necessary to draw a line between the reactions due to hypersensitivity and those commonly called toxic. The majority of cases discussed in this paper showed so-called toxic reactions, or, to use a better term, signs of intolerance to arsphenamine.

Let us consider for a moment the meaning of these toxic reactions. Qutside of the massive dose therapy, the amount of arsphenamine used in syphilis therapy is far below the toxic levels. Since only a certain percentage of patients treated show signs and symptoms of intolerance, we are confronted with individual variations different from those known as hypersensitivity. Why is it, then, that some individuals do not tolerate a drug so well as others? It apparently is due to an inferior detoxification mechanism.

The role of the liver and other organs in detoxification has been known for many years. Only the rapid development of biochemistry and the science of nutrition have brought out new and valuable facts about the substances which are involved in detoxification. The study of the sulfa drugs, chloroform and carbon tetrachloride poisoning, butter yellow cancer, cirrhosis of the liver and of the fatty livers due to choline, inositol, and other vitamin deficiencies in experimental animals, have stimulated research which is rapidly advancing our knowledge of liver function. The application of this knowledge to clinical medicine is already proving itself very fruitful.

Liver extract is a source of vitamins, especially those of the B complex, which are building stones of enzymes of biologic oxidation. The effect of chemotherapeutic drugs on parasites is apparently due to their interference with enzyme systems in microorganisms without which life is not possible. We know that even the therapeutic dose of a drug will have a similar effect on the cells of the host organism, but the amount of damage is so small that no noticeable changes will take place in the various organs, provided their detoxification mechanism is in good order.

Recent research has proved that the state of nutrition of the individual is an important factor in maintaining normal liver function, which includes detoxification. In addition to the vitamins, the essential amino acids, the phospholipids, and adequate caloric intake are indispensable for the protection of the liver.

The parenteral liver extract supplies the vitamins, especially of the B complex, the pernicious anemia factor, adenylic acid, and other unknown factors. Therefore it is necessary to give our patients undergoing antisyphilitic therapy specific instructions about their nutrition in order to insure the addi-

tional protection afforded by a high protein, high vitamin, and high caloric diet, low in fat.

Food rationing and shortage in certain nutritional elements which we have to expect during the coming period of the war and in the postwar period give these considerations paramount importance to the syphilologist. I have only to remind you of the high incidence of postarsphenamine jaundice during and after the first World War in Europe to illustrate this point.

Although Dr. Astrachan's presentation contains interesting observations about the effect of parenteral liver therapy on the various manifestations of arsphenamine intolerance, his most valuable contribution lies in the data concerning the icteric index of patients treated with arsphenamine or bismuth and the beneficial effect obtained by liver therapy. These figures indicate that the original water technic was used, and the reductions of the icteric index following liver therapy are constant and large enough, especially in some of the pathologically high values, to recommend this method as a protective procedure.

That the repair of liver damage was to a greater part due to the liver therapy is demonstrated (1) by the persistence of a high icteric index in some of the cases, for months and even years after arsphenamine or heavy-metal therapy, (2) by the response of such long-standing liver damage to the subsequent parenteral liver therapy, and (3) by the results of the concomitant use of liver injections with arsenical or bismuth therapy.

These findings and some of the effects on other reactions make it clear that parenteral liver extract is a valuable adjunct in the prophylaxis and treatment of some by-effects of antisyphilitic drugs.

The increasing tendency toward intensive treatment methods calls not only for congratulations to Dr. Astrachan on his excellent work and the results achieved, but imposes on us the duty to join him wholeheartedly in his effort to reduce these reactions and accidents which retard or weaken our antisyphilitic therapy.

Clinical work should be guided by the more accurate facts obtainable in experimental research. For this reason, my coworkers and I at Columbia University have for several years devoted ourselves to the study of the protective mechanism for chronic metal poisoning of the rat. From the experience gained in analyzing the effect of chronic zinc poisoning, we hope to find a new approach to the study of arsenical and other metal poisonings.

In short, our findings thus far demonstrate that animals maintained on a suboptimal supply of pantothenic acid develop clinical signs of a vitamin deficiency when fed high levels of zinc. Control animals fed the same amounts of pantothenic acid do not show the deficiency syndrome. Animals receiving optimal amounts of pantothenic acid will withstand the effect of the toxic doses of zinc and appear normal. Unpublished experiments of ours have further shown that high protein diets and additional amounts of inositol also afford a high degree of protection against zinc poisoning in animals maintained on suboptimal doses of pantothenic acid. Our experiments on thallium poisoning have

demonstrated that a different protective mechanism exists against this metal and that separate investigations will be necessary for arsenic, lead, and other metals.

Until our knowledge in this field has been broadened, we shall depend on the use of parenteral liver extract recommended by Dr. Astrachan, the use of ascorbic acid advocated by other authors, and last but not least on the regulation of the dietary intake of proteins, carbohydrates, fats, and vitamins as protective and therapeutic measures for reactions due to arsphenamine, bismuth, and gold therapy.

Dr. Astrachan, New York City—I wish to thank Dr. Gross for his discussion and for his constructive criticism. The prophylactic value of liver extract is still uncertain, and this problem requires further study and experiment. It seems to me, however, that some reactions due to toxicity may be prevented or ameliorated to such an extent that the arsenical or heavy-metal therapy may be resumed. This is probably achieved by the process of detoxification. The function of the liver and its detoxifying ability are benefited by liver extract injections, and that explains the usefulness of liver extract in cases receiving arseno- or heavy-metal therapy.

In answer to Dr. Combes I may add that the crude liver extract (1/2-1 U.S.P. unit per cc.) was

used in this investigation. The crude preparation contains the detoxifying materials. According to Dr. Sharp, the crude liver extract contains more extraneous material than the highly concentrated or refined liver extract, "since by processing to obtain the high concentration of the potent factor several of the inert liver fractions are removed. Thus it can be assumed that whatever detoxifying effect is obtained from liver extract can be attributed to the inert components of the less refined preparations." The injections were given one to three times a week and the maximum dosage reached was 5 cc. I may take Dr. Gross' advice and use larger dosages. This advice was also given to me by Dr. Sharp several years ago.

The intravenous method of administration of liver extract was used in 26 cases. With the exception of a mild flushing of the face and shortness of the breath lasting about fifteen to thirty seconds, the patients tolerated the injections well. In many cases the shortness of breath was ameliorated or even prevented by giving the intravenous injection

very slowly.

I believe that the intravenous method of administration may be used, but the intranuscular method is preferable because of the absence of the above-mentioned reactions and also because of the possibility of giving larger dosages.

# NEW FOUNDATION FOR SCIENTIFIC RESEARCH'

Establishment of the Passano Foundation, Inc., has been announced by the Williams & Wilkins Company, Baltimore, "for scientific and educational, purposes, particularly to provide for scientific research and to publish the results of scientific research and to make awards for meritorious achievements in scientific research." The foundation is named for Mr. Edward B. Passano, chairman of the board of the Williams & Wilkins Company, who has actively been identified with the development of scientific publishing for a period of more than thirty-five years. By the terms of the charter of the foundation, the board of directors may inaugurate the establishment of an annual award not to exceed \$5,000 for the outstanding contribution to the advancement of medical science made within the year by an American citizen.

A number of other projects are under consideration, one of which is the advancement of postgraduate instruction among physicians in sections of the country not accessible to medical centers in the larger cities. Mr. Robert S. Gill, president of the Williams & Wilkins Company, has been elected president of the new foundation, which will have its headquarters at Mount Royal and Guilford avenues, Baltimore 2.

Members of the Foundation's board of directors include Dr. Emil Novak, associate professor of obstetrics, Johns Hopkins University School of Medicine, Dr. George W. Corner, director of the Embryological Laboratory of the Carnegie Institution of Washington, and Mr. George Hart Rowe of the Williams & Wilkins Company, all of Baltimore.—

J.A.M.A., Feb. 19, 1944

#### TUBERCULOSIS AND PUBLIC HEALTH

Improved health conditions are in evidence on a broad front. Yet on all sides we encounter much disability and many deaths due to diseases for which we have adequate means of prevention and control.

Tuberculosis stands out prominently as one of the chief offenders in this group. Sixty thousand annual deaths represent but a small part of the penalty paid by the American people for failure to eradicate this disease. It is estimated that half a million persons in the United States have tuberculosis. . . . yet the vast majority of this group will not be given the advantages of early diagnosis and early treatment. This presents a public health problem of major significance.—H. D. Lees, M.D., in Social and Economic Aspects of Tuberculosis, 1948

## THE EDITOR'S JOB

Getting out this paper is no picnic.

If we print jokes, people say we are silly.

If we don't they say we are too serious.

If we clip things from other magazines

We are too lazy to write them ourselves.

If we don't, we are stuck on our own stuff.

If we don't print every word of all contributions

We don't appreciate true genius.

If we do print them, the columns are filled with junk.

If we make a change in the other fellow's write-up,

we are too critical.

If we don't, we are blamed for poor editing. Now, like as not, some guy will say We swiped this from some other sheet. WE DID.—Delaware State M.J.

# TREATMENT OF NONPYOGENIC INFECTIONS WITH RADIATION THERAPY

IRA I. KAPLAN, B.Sc., M.D., New York City

THE wonderful achievements of science in producing germ-killing chemicals and synthetic vitamins have served to prolong human life and save it from the dire effects of infection.

In a world desperately engaged in war and destruction, there have paradoxically emerged lifesaving procedures in medicine which are almost miraculous. The use of chemotherapy has radically revised our prognosis in most cases of pyogenic infections and made the care of the severely wounded much more readily effective. Nevertheless, out of the war, too, have appeared infectious conditions which chemotherapy has as yet been unable to control. The distribution of vast bodies of armed men into environments completely new to them, the inevitable changing of habits, the enforced living under conditions less civilized than those they were formerly accustomed to-all these circumstances have subjected the men to diseases which are hardly noticed in their normal lives at home. This is especially true of the American soldiers who have been sent abroad to live in an environment and under conditions which they had not been prepared to withstand.

Out of this cauldron of war infections there have appeared an increasing number of lesions uncontrolled by chemotherapeutic measures which are ordinarily successful. It is in the treatment of such infections that x-ray therapy has played and is continuing to play a most important role.

# Diphtheria

Diphtheria, almost eliminated here at home, now begins to reappear by reason of crowding young men together in such close proximity, subjected to the dangers of respiratory hazards. To this is due the persistence of diphtheria in patients otherwise normal, or the diphtheria carriers

In 1922, during the course of an epidemic in Detroit, Michigan, Hickey¹ first reported upon the control of diphtheria carriers with x-ray therapy. In 1932 Rogers² reported 100 per cent good results in the treatment of 18 cases at the Municipal Colony Hospital in Trenton, New Jersey.

Bychowsky<sup>3</sup> et al. reported satisfactory results in the treatment of a series of 96 cases.

Ledoux-Lebard' reported treating 9 cases with good results. Similar good results from such treatment in the cases under his care were reported by Wahl<sup>5</sup> in 1932. Dubowyi<sup>5</sup> reported satisfactory results in 75 cases which he treated.

In 1938, Streil' summarized the results in his treatment of 150 cases of diphtheria carriers with roentgen rays. His material comprised two groups. The first were the "dischargers," or those who, though recovered from the clinical form of diphtheria, still showed positive smears for from three to four weeks after the onset of the disease. The second group were the "accidentally discovered diphtheria carriers." Following x-ray treatment, good results were obtained in 95 per cent of the cases in the first, and in 97 per cent of the cases in the second group.

As already known, the action of the x-rays is not directly bactericidal, but experience has shown that irradiation favorably affects inflammatory conditions, the endotoxins formed thereby destroying the bacteria. In addition, the fibrosis which later sets in with shrinkage of tonsillar tissue eliminates the crypt formation so favorable for the lodgment of diphtheria bacteria.

Heineke,<sup>8</sup> and later Warthin,<sup>9</sup> showed experimentally that as promptly as fifteen minutes after roentgen treatment lymphocytes undergo nuclear disintegration, and this continues for several days. Desjardins<sup>10</sup> and Hodges<sup>11</sup> associated this rapid destruction of lymphocytes with the liberation of large quantities of labile, active endotoxins which are bactericidal.

Streil suggests that Pordes' theory regarding the action of x-rays is most plausible. Pordes holds that the beneficial action of x-rays is due to the mobilization of proteolytic ferments within the leukocytes, and that under the influence of the x-rays these ferments exert the bactericidal action

Williams and Fullenlove<sup>12</sup> believe the results are achieved by restoring diseased mucous membranes to normal, thus eliminating the organism and establishing an immunization against the bacilli.

In 1940 I<sup>13</sup> reported on the treatment of 11 cases in the Radiation Service at Bellevue Hospital and since then have treated 3 more cases. Six of the patients were males and 8 were females. The oldest was a woman aged 63 and the youngest a boy of 7. The oldest man was 30 and the

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943.

Director, Radiation Therapy Department, Bellevue Hospital, New York City; clinical professor of surgery, New York University College of Medicine, New York City.

TABLE 1 .- DIPHTHERIA CARRIERS TREATED WITH N-RAY

Name	Age	Sex	Admission Date	Site of Disease	Duration	Dates Treated	Number of Treatments	Results-Nega-
W. L.	26	M	Jan. 4, 1937	Throat	2 months	Jan. 11, 18, 25, 1937	3	Feb. 16, 1937
E. S.	30	M	Jan. 11, 1937	Throat	1 month	Jan. 11, 18, 25, 1935	3	Feb. 16, 1937
M.R.	22	71	April 27, 1937	Nose and throat	3 weeks	May 3, 10, 17,	3	May 21, 1937
A. N.	27	M	May 3, 1937	Nose and throat	1 month	May 3, 10, 17, 24, 1937	4	May 31, 1937
M.B.	27	F	Oct. 28, 1937	Larynx	3 weeks	Oct. 28, 1937	1	Oct. 29, 1937
Ä. B.	27 15	M	Feb. 23, 1938	Throat		Feb. 23, 1937	î	Feb. 23, 1938
A. F.	20	F	Aug. 10, 1938	Throat	10 weeks	Aug. 10, 1938	Ĩ	Aug. 13, 1938
E. F.	63	F	Oct. 31, 1938	Throat	1 month	Oct. 31, 1938	1	Nov. 3, 1938
M. S.	25	F	June 9, 1939	Throat	2 weeks	June 9, 12, 14. 19, 1939	4	June 19, 1939
H. S.	26	F	July 26, 1939	Nose and throat	3 weeks	July 26 and Aug. 2, 1939	2	Aug. 4, 1939
A. P.	13	F	July 26, 1939	Nose and throat	2 months	July 26 and Aug. 2, 1939	2	July 31, 1939
J. M.	29	F	May 10, 1940	Post-tonsil	2 weeks	May 14, 17, 21, 24, 1940	4	May 28, 1940
H. S.	7	M	Oct. 2, 1941	Postnasal	2 months	Oct. 2, 6, 9, 14, 1941	4	Nov. 27, 1941
J. C.	45	F	March 3, 1941	Nose	34 days	March 3, 6, 10, 1941	3	May 2, 1941

youngest girl was 13. In 4 cases the nose and throat were involved; in 6, the throat alone. The nose, the nasopharynx, the tonsil, and the larynx were each involved once. The duration as a carrier varied from two to five weeks. Irradiation was requested only after all other methods of control had failed. The patient was declared cured if two sets of cultures proved negative. Treatment was given with high voltage x-ray therapy of the following factors—180-200 kv., with 0.5 mm. Cu plus 1 mm. Al filter at from 40-50 cm. distance through 8 by 10 or 9 by 12 cm. portal.

Treatment was administered through both sides of the neck with the rays directed through the tonsillar areas. The dose was 150 r per treatment per area, one treatment per week for three weeks. In some cases four or five treatments were needed to achieve results. Seldom did untoward effects occur—manifested by pains in the jaw and neck which passed away within the next day without active treatment.

One week after completion of treatment the throat cultures are usually negative for diphtheria. In some instances negative cultures may follow one or two treatments, in which case a third dose of irradiation may not be required. Occasionally some cases require a fourth treatment before a negative culture is achieved.

In our cases the treatment was immediately effective in most cases and delayed relief was obtained in 2 cases and recurrence in only one case, Case 14. The reports from the Contagious Disease Hospital on Cases 12, 13, and 14 are given herewith in detail (see Table 1).

Case 12.—J. M., a woman aged 29, was admitted on May 10, 1940, as a carrier, with involvement as a post-tonsillar abscess which did not respond to all the usual antidiphtheritic measures. Four x-ray treatments were administered on May 14, 17, 21, and 24. On May 28, 1940, she was discharged as cured, two sets of cultures having been negative for diphtheria.

Case 18 .- H. S. male, was admitted as a diphtheria carrier on July 11, 1941. He was discharged as cured on August 2, 1941, after two sets of negative nose and throat cultures were obtained. He was readmitted on August 9 for the same condition. Nose and throat cultures were reported as "toxic." He was referred for x-ray therapy on October 2, 1941. After having received radiation therapy, the cultures and virulence tests were still positive. It was not until November 22 that two consecutive negative nose and throat cultures were obtained. Virulence tests of nose and throat cultures were toxic on November 7, following radiation therapy. He was discharged on November 27, 1941, since two sets of negative nose and throat cultures were obtained on November 22 and 23.

Case 14.—J. C. was admitted to the Contagious Disease Hospital as a diphtheria carrier on January 29, 1941. Since the nose and throat cultures were persistently positive, he was referred to Bellevue Hospital for x-ray therapy. On March 3, 6, and 10, he was given x-ray therapy. However, subsequent nose and throat cultures still showed toxic Klebs-Loeffler bacilli. Throat cultures were negative on March 23 and 24, and nose cultures on March 26 and 27, 1941. He was also treated locally with gentian violet and hexylresorcinol and received 30 cc. of diphtheria antitoxin. He was discharged on March 29, 1941. He was readmitted to the Contagious Disease Hospital from another institution on April 23 and tests on the nose and throat cultures were positive for Klebs-Loeffler bacilli. Under several treatments, two consecutive sets of negative nose and throat cultures were obtained on April 28 and 29, 1941. He was discharged on May 2, 1941.

Comment.—Evidently in Case 14 the usual course of three treatments was not sufficient to completely control the condition at once. Unfortunately the patient was not again referred back for additional therapy, for with additional

irradiation, control would have been achieved more expeditiously, as in the cases previously treated.

If the diphtheria focus was in the nasopharynx, irradiation was administered directly through the nose and face area. The factors employed were similar to those used for the tonsillar treatment.

## Actinomycosis

This is a very serious disease characterized by an infection due to the ray fungus, the actinomyces bovis. It manifests itself usually by the development of lumpy tumors associated with loss of weight and strength and an irregular temperature. It may attack soft tissues, viscera, and bone.

The definite method of infection is not always known, but it is believed that the mouth is the most frequent portal of entry. In most instances the disease is said to be due to the eating of or picking the teeth with infected grass, straw, or grains, and entrance is usually via a carious tooth area. MacCallum<sup>14</sup> noted that wood and straw are the frequent sites of this fungus, which is transmitted via mouth to the victim. Direct infection from animals has occurred. While this infection may involve all types of tissues, it is found clinically most often in the mouth, neck, abdomen, and chest.

Men are more frequently affected than women. Treatment up to recent times was not very efficacious; chemicals and/or surgery were employed. With the advent of the x-rays a new method of treatment of infectious diseases was believed to be at hand. Harsha<sup>15</sup> in this country was the first to report successful treatment of actinomycosis with x-rays. MacKee<sup>16</sup> states that x-ray therapy is not only indicated in this disease but that such treatment is superior to any other. Smith17 states that "roentgen treatment is a distinct advance in the therapy of actinomycosis." However, it was soon noted that x-rays had no direct effect, but that the results in the treatment of infections had been achieved through the effect on the surrounding tissues and the lymphocytes. While the precise action of x-rays on actinomycosis has not been determined, the known effect of x-rays on infectious processes is thought to play an important part in controlling this condition, too. MacKee says, "the probable reason for this high degree of radiosensitiveness is the fact that the entire lymphatic system is easily and profoundly affected by both x-rays and radium." Smith believes there is a direct effect of the x-rays on the fungus in vivo. Xrays stimulate the formation of fibrous tissues which may encapsulate and constrict the infection area.

The most frequent region of involvement is the

cervico-facial area. The site of infection may often be a carious tooth or a bruised mucous membrane area within the mouth. The lesion starts as a raised "lump," bluish in color, which gradually extends, softens, and breaks down with abscess and sinus formation, draining a yellowish pus which contains the ray fungus. The sinuses usually break through the skin and may be painful. When the mandible is involved the bone has an appearance similar to that noted in periosteal tumefaction.

Thoracic lesions occur usually in men, with the lung most frequently the site of the infection. Involvement is usually via inhalation through the mouth and pharynx. Occasionally metastatic actinomycotic lesions are seen.

The involvement may be nodular or miliary in type. The condition simulates bronchopneumonia or tuberculosis, with severe cough and expectoration of profuse fetid mucus, which contains the sulfur granules of the ray fungus. The lesions may coalesce and form large abscess cavities and gradually break through the chest wall in sinus formation. The roentgenograph is not uniform, and distinctions must be made between actinomycosis and chronic lung abscess, tuberculosis, or empyema with thickened pleura. Kugelmeier18 describes well the diagnostic difficulties encountered with this disease, when it involves the chest. Where areas of destruction are present with or without reaction of osteomyelitis or periostitis and there is destruction of ribs or sternum, actinomycosis is probably the lesion. Finding of the ray fungus clinches the diagnosis. Prognosis, however, in these cases is poor. Abdominal actinomycosis occurs rather frequently but is rarely diagnosed preoperatively. symptoms are so similar to appendicitis that it is often mistaken for the latter. In 1924 Kaplan<sup>19</sup> reported on such a case. In abdominal actinomycosis 50 per cent of the cases have ileocecal involvement and present a clinical picture of chronic appendicitis. The lesion occasionally begins as a granular tumor which extends and breaks down with abscess formation which often burrows via a sinus through the abdominal wall.

Radiation therapy in actinomycosis is best carried out with high voltage x-rays filtered by 0.5 mm. Cu. We are in accord with Smith, who says that "as a general rule, those cases which received large initial doses made the most rapid and uneventful recoveries," and further, that those patients which had the minimum of surgical interference recovered more rapidly than did those who were subjected to surgery. Treatment is given over the involved areas. One or more areas may be treated at one time, 150 r administered at one- to three-day intervals until 900–1,500 r are given each area. A second, or more,

series may be given at four-to six-week intervals, should the condition persist or recur. Drainage should be kept open until the sinuses heal from within outward. Table 2 lists the cases treated. Usually several series may be required to completely control the lesion. In our series 8 cases were treated involving the mouth and face, 2 involving the lung, and 4 involving the abdomen and the hand. In one case the diagnosis was not confirmed by finding the ray fungus. In the other 7 actinomycosis was definitely proved pathologically. Four patients survived and were healed, 3 patients died of the disease, and one case not proved to be actinomycosis was completely cured by x-ray therapy.

We have treated 8 cases and the following are illustrative of those treated (see Table 2).

Case 1 (4631).—M. DeP., a woman aged 20, single, a picture-frame maker, was admitted September 26, 1930, complaining of swelling and ulceration with discharging sinuses involving the left jaw and face. The condition began in May, 1930, as a swelling over the left jaw with pain radiating to the head.

The swelling was hard and approximately one inch in diameter. Gradually the gums became more tender and the patient went to the dentist, who x-rayed the jaw and reported the presence of an infected lower third molar, which he extracted. Pain was relieved, but infection and swelling grew progressively worse. In June, 1930, the gum was incised and drained, and repeated incisions were made in June and July, when pus-draining sinuses had broken through the cheek. The patient was weak and rapidly lost weight. In September she was referred to Bellevue Hospital, where examination revealed a swelling of the left cheek and jaw, of a violet-bluish hue, punctuated by many granulationlike openings from which profuse yellowish pus was flowing. Within the mouth there was swelling of the gingiva. Smear showed actinomycosis (ray fungus). X-ray of the jaw and chest revealed no important pathology.

She was referred for irradiation and high voltage x-ray therapy was instituted and administered in weekly doses for four weeks between September 29 and October 21. A 25 per cent skin dose was given each time (the dose measurement in 1930 was still based on the skin erythema equivalent to about 600 r). The factors used for the x-ray treatment were 200 ky., 0.5 mm. Cu plus 1 mm. Al filter, 30 cm. distance, 8 by 10 and 9 by 12 cm. field5.

Following this treatment the granulations about the sinus opening were removed with endothermy, and x-ray therapy was again administered to 75 per cent of a skin dose, the last treatment on January 16, 1931.

On April 30, 1931, the condition was completely healed and the general condition of the patient was excellent. In 1932 the patient married and has given birth to two normal children. She was last seen by us on January 7, 1941, with no evidence of recurrence, and her general condition is excellent.

TABLE 2 .- ACTINOMICOSIS

Name	Age	Sex	Admission Date	Site of Disease	Result
J. M.	23	7,T	June 16, 1923	Chest	Died July 6, 1923
J. P.	24	M	June 20, 1924	Chest	Died May 26, 1925
F. B.	40	М	April 7, 1927	Chest	Cured
C. C.	29	M	Jan. 25, 1928	Jaw	Cured
L. D.	14	F	Oct. 25, 1928	Chest	Died Jan. 26, 1929
M. deP.	20	F	Sept. 26, 1930	Jaw	Cured
V. T. G.	20	F	April 16, 1931	Abdomen	Cured
L. W.	33	М		Hand	Cured

Comment.—In this case, despite multiple involvements, the treatment given proved adequate, with definite satisfactory results.

Case 2 (7895).-L. W., a man aged 33, married, a boiler-maker, was admitted on March 1, 1933, for infection in the hand and pain in the back. In July, 1932, nine months before admission to the Radiation Service, a sudden swelling appeared on the back of the left hand which later broke down and exuded pus through two sinuses on the dorsum and one on the palmar surface of the hand. He gave self-treatment and in October, 1932, noticed pain in the back. In January, 1933, a tender swelling appeared over the right chest wall. He had lost 30 pounds, had some cough and night sweats, but no hemoptysis. Because his condition became more and more painful he entered Bellevue Hospital, in poor condition. There was an ulceration involving the palm and dorsum of the left hand and a large mass was found on the right lateral chest opposite the ninth to twelfth ribs, which was fluctuant and quite tender. Aspiration smear from the chest lesion showed the ray fungus of actinomycosis. An x-ray of the chest showed interstitial changes and fibrosis at the root of both lungs extending to the base and adjacent to the heart on the right. The right diaphragm was elevated and fixed. The patient was referred for x-ray therapy and this was administered from March 1, 1933, to March 23, 1933; a dose of 600 r was given to each area over the anterior and posterior left hand and to the left chest area. The patient left the hospital improved but failed to return subsequently for further observation.

Case 3 (5177).—V. T. G., a 20-year-old woman, was admitted April 16, 1931, to the Radiation Service complaining of a draining sinus through the anterior abdominal wall. She reported that in December, 1929, she had a sudden severe abdominal attack which was diagnosed as appendicitis, and an appendectomy was performed. She made an uneventful recovery and remained well until January, 1930, when the abdominal scar broke down and a sinus draining pus developed, which continued to discharge until June, 1930, when a surgical attempt was made to close the draining sinus. This proved unsuccessful and the patient went to the Mayo Clinic in January, 1931, where a diagnosis of actinomycosis was made and x-ray therapy was instituted.

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The swelling was hard and approximately one inch in diameter. Gradually the gums became more tender and the patient went to the dentist, who x-rayed the jaw and reported the presence of an infected lower third molar, which he extracted. Pain was relieved, but infection and swelling grew progressively worse. In June, 1930, the gum was incised and drained, and repeated incisions were made in June and July, when pus-draining sinuses had broken through the cheek. The patient was weak and rapidly lost weight. In September she was referred to Bellevue Hospital, where examination revealed a swelling of the left cheek and jaw, of a violet-bluish hue, punctuated by many granulationlike openings from which profuse yellowish pus was flowing. Within the mouth there was swelling of the gingiva. Smear showed actinomycosis (ray fungus). X-ray of the jaw and chest revealed no important pathology.

She was referred for irradiation and high voltage x-ray therapy was instituted and administered in weekly doses for four weeks between September 29 and October 21. A 25 per cent skin dose was given each time (the dose measurement in 1930 was still based on the skin erythema equivalent to about 600 r). The factors used for the x-ray treatment were 200 kv., 0.5 mm. Cu plus 1 mm. Al filter, 30 cm. distance, 8 by 10 and 9 by 12 cm. fields.

Following this treatment the granulations about the sinus opening were removed with endothermy, and x-ray therapy was again administered to 75 per cent of a skin dose, the last treatment on January 16, 1931.

On April 30, 1931, the condition was completely healed and the general condition of the patient was excellent. In 1932 the patient married and has given birth to two normal children. She was last seen by us on January 7, 1941, with no evidence of recurrence, and her general condition is excellent.

TABLE 2 .-- ACTINOMYCOSIS

Name	Age	Sex	Admission Date	Site of Disease	Result
J. M.	23	M	June	Chest	Died
J. P.	24	м	16, 1923 June 20, 1924	Chest	July 6, 1923 Died May 26, 1925
F. B.	40	M	April	Chest	Cured Cured
C. C.	29	м	7, 1927 Jan. 25, 1928	Jaw	Cured
L. D.	14	F	Oct.	Chest	Died
M. deP.	20	F	25, 1928 Sept. 26, 1930	Jaw	Jan. 26, 1929 Cured
V. T. G.	20	F	April	Abdomen	Cured
L. W.	33	M	16, 1931 March 1, 1933	Hand	Cured

Comment.—In this case, despite multiple involvements, the treatment given proved adequate, with definite satisfactory results.

Case 2 (7895).-L. W., a man aged 33, married, a boiler-maker, was admitted on March 1, 1933, for infection in the hand and pain in the back. In July, 1932, nine months before admission to the Radiation Service, a sudden swelling appeared on the back of the left hand which later broke down and exuded pus through two sinuses on the dorsum and one on the palmar surface of the hand. He gave self-treatment and in October, 1932, noticed pain in the back. In January, 1933, a tender swelling appeared over the right chest wall. He had lost 30 pounds, had some cough and night sweats, but no hemoptysis. Because his condition became more and more painful he entered Bellevue Hospital, in poor condition. There was an ulceration involving the palm and dorsum of the left hand and a large mass was found on the right lateral chest opposite the ninth to twelfth ribs, which was fluctuant and quite tender. Aspiration smear from the chest lesion showed the ray fungus of actinomycosis. An x-ray of the chest showed interstitial changes and fibrosis at the root of both lungs extending to the base and adjacent to the heart on the right. The right diaphragm was elevated and fixed. The patient was referred for x-ray therapy and this was administered from March 1, 1933, to March 23, 1933; a dose of 600 r was given to each area over the anterior and posterior left hand and to the left chest area. The patient left the hospital improved but failed to return subsequently for further observation.

Case 3 (5177).—V. T. G., a 20-year-old woman, was admitted April 16, 1931, to the Radiation Service complaining of a draining sinus through the anterior abdominal wall. She reported that in December, 1929, she had a sudden severe abdominal attack which was diagnosed as appendicitis, and an appendectomy was performed. She made an uneventful recovery and remained well until January, 1930, when the abdominal scar broke down and a sinus draining pus developed, which continued to discharge until June, 1930, when a surgical attempt was made to close the draining sinus. This proved unsuccessful and the patient went to the Mayo Clinic in January, 1931, where a diagnosis of actinomycosis was made and x-ray therapy was instituted.

irradiation, control would have been achieved more expeditiously, as in the cases previously treated.

If the diphtheria focus was in the nasopharynx, irradiation was administered directly through the nose and face area. The factors employed were similar to those used for the tonsillar treatment.

# Actinomycosis

This is a very serious disease characterized by an infection due to the ray fungus, the actinomyces bovis. It manifests itself usually by the development of lumpy tumors associated with loss of weight and strength and an irregular temperature. It may attack soft tissues, viscera, and bone.

The definite method of infection is not always known, but it is believed that the mouth is the most frequent portal of entry. In most instances the disease is said to be due to the eating of or picking the teeth with infected grass, straw, or grains, and entrance is usually via a carious tooth area. MacCallum<sup>14</sup> noted that wood and straw are the frequent sites of this fungus, which is transmitted via mouth to the victim. Direct infection from animals has occurred. While this infection may involve all types of tissues, it is found clinically most often in the mouth, neck, abdomen, and chest.

Men are more frequently affected than women. Treatment up to recent times was not very efficacious; chemicals and/or surgery were employed. With the advent of the x-rays a new method of treatment of infectious diseases was believed to be at hand. Harsha<sup>15</sup> in this country was the first to report successful treatment of MacKee<sup>16</sup> states actinomycosis with x-rays. that x-ray therapy is not only indicated in this disease but that such treatment is superior to any other. Smith17 states that "roentgen treatment is a distinct advance in the therapy of actinomycosis." However, it was soon noted that x-rays had no direct effect, but that the results in the treatment of infections had been achieved through the effect on the surrounding tissues and the lymphocytes. While the precise action of x-rays on actinomycosis has not been determined, the known effect of x-rays on infectious processes is thought to play an important part in controlling this condition, too. MacKee says, "the probable reason for this high degree of radiosensitiveness is the fact that the entire lymphatic system is easily and profoundly affected by both x-rays and radium." Smith believes there is a direct effect of the x-rays on the fungus in vivo. Xrays stimulate the formation of fibrous tissues which may encapsulate and constrict the infection area.

The most frequent region of involvement is the

cervico-facial area. The site of infection may often be a carious tooth or a bruised mucous membrane area within the mouth. The lesion starts as a raised "lump," bluish in color, which gradually extends, softens, and breaks down with abscess and sinus formation, draining a yellowish pus which contains the ray fungus. The sinuses usually break through the skin and may be painful. When the mandible is involved the bone has an appearance similar to that noted in periosteal tumefaction.

Thoracic lesions occur usually in men, with the lung most frequently the site of the infection. Involvement is usually via inhalation through the mouth and pharynx. Occasionally metastatic actinomycotic lesions are seen.

The involvement may be nodular or miliary in type. The condition simulates bronchopneumonia or tuberculosis, with severe cough and expectoration of profuse fetid mucus, which contains the sulfur granules of the ray fungus. The lesions may coalesce and form large abscess cavities and gradually break through the chest wall in sinus formation. The roentgenograph is not uniform, and distinctions must be made between actinomycosis and chronic lung abscess, tuberculosis, or empyema with thickened pleura. Kugelmeier<sup>18</sup> describes well the diagnostic difficulties encountered with this disease, when it involves the chest. Where areas of destruction are present with or without reaction of osteomyelitis or periostitis and there is destruction of ribs or sternum, actinomycosis is probably the lesion. Finding of the ray fungus clinches the diagnosis. Prognosis, however, in these cases is poor. Abdominal actinomycosis occurs rather frequently but is rarely diagnosed preoperatively. symptoms are so similar to appendicitis that it is often mistaken for the latter. In 1924 Kaplan 19 reported on such a case. In abdominal actinomycosis 50 per cent of the cases have ileocecal involvement and present a clinical picture of chronic appendicitis. The lesion occasionally begins as a granular tumor which extends and breaks down with abscess formation which often burrows via a sinus through the abdominal wall.

Radiation therapy in actinomycosis is best carried out with high voltage x-rays filtered by 0.5 mm. Cu. We are in accord with Smith, who says that "as a general rule, those cases which received large initial doses made the most rapid and uneventful recoveries," and further, that those patients which had the minimum of surgical interference recovered more rapidly than did those who were subjected to surgery. Treatment is given over the involved areas. One or more areas may be treated at one time, 150 r administered at one- to three-day intervals until 900—1,500 r are given each area. A second, or more,

the anterior chest. One dose was administered, and the next day, without previous signs indicating distress, the patient suddenly expired. No autopsy was obtained.

Comment.—The source of infection may have been from the countryside where the child played in the fields, which might have harbored the fungus. In spite of what seemed to be adequate treatment, cure was not achieved in this case.

Case 6 .- J. P., a 24-year-old man, a slaughter-house worker, was admitted to the Radiation Service on June 20, 1924, complaining of swelling over the chest with a draining sinus. His illness began in February, 1924, with what appeared to be a cold. Later pain and swelling appeared over the front of the chest and extended to the right side of the neck, with increased pain on respiration and incessant cough, hemoptysis, loss of 14 pounds, and weakness. For several months he doctored himself; then, because of increasing distress, he sought aid at the clinic. Because of the severity of the condition he was admitted to Bellevue Hospital, where on June 6, 1924, a provisional diagnosis of cellulitis of the chest, possibly tuberculosis, was made. The swelling over the sternum was incised and drained, and some pus was removed for pathologic study. On examination this showed typical ray fungus of actinomyces bovis,

The patient was referred for x-ray therapy. Between June 20 and June 27, 1924, x-ray therapy was administered to the anterior and posterior chest areas. About a 100 per cent H. E. D. dose of high voltage x-ray, 200 kv., 0.5 mm. Cu plus 1 mm. Al was given.

The patient failed to improve and between July 21 and August 23, 1924, additional high voltage x-ray therapy was administered and a 100 per cent H. E. D. dose to the right anterior chest and a 55 per cent dose to the left side were given. On August 25, 1924, the patient left the hospital only slightly improved. In October he felt very much worse and on October 27, 1924, entered another hospital for relief. There his condition was found to be poor; swelling and sinus formation on the chest wall had An x-ray examination at that time showed massive infiltration of the left lung area, suggestive of chronic tuberculosis. On several occasions he was operated upon with incision and drainage and curettement of the sinuses. Examination of the smears and tissue removed at operation, however, showed no typical actinomycosis. He was given larger doses of potassium iodides and supportive care. However, he progressively got worse and was discharged in poor condition to a custodial hospital, on May 25, 1925, where he died.

Comment.—In this case the condition was already far advanced, as indicated by intrathoracic involvement, when he reported for medical care. The dosage of x-ray given was too small and treatment was not given in sufficient total quantity to achieve a favorable result.

Case 7.-J. Mc., 23-year-old man, a laborer, was

admitted June 16, 1923, for a chronic sinus lesion in the mouth, chills, sweats, septic temperature, and loss of weight. X-ray examination of the chest on admission showed irregular peribronchial infiltration throughout, with enlargement of the hilar nodes and pleural effusion. Examination of the pus of the draining sinus showed actinomycosis. This patient was referred for x-ray treatment on June 25, 1923. One treatment of 100 per cent of the H. E. D. of high voltage x-ray therapy was administered directly over the anterior chest. The patient steadily grew worse and was too ill to be moved for further treatment. He died on July 6, 1923.

Comment.—This patient was already too ill when treatment was requested and the dose, though large and administered at one session, was inadequate to control the infection, and the large single dose may have been too severe for toleration in the patient's weakened condition.

Case 8 .- P. B., aged 40, a locksmith, was admitted on April 7, 1927, to the surgical service at Bellevue Hespital with cough, draining chest wall sinus, and swelling over a previous operative scar. In December, 1925, he had noted a swelling on the anterior chest wall. He entered the hospital, where the swelling was incised for abscess and the patient was discharged to the outpatient clinic for dressing. However, the lesion failed to heal and he was readmitted at this time. Clinical diagnosis of actinomycosis was not confirmed by pathologic study. Because of the persistent draining sinus and the clinical diagnosis of actinomycosis, x-ray therapy was requested. High voltage x-ray therapy was administered to the anterior and posterior right chest area. A 100 per cent dose was given to the anterior and a 50 per cent dose to the posterior; a 25 per cent dose was given a lateral area. Treatment was given over this period, from April 7 to June 30, 1927. Following treatment the lesion completely healed.

Comment.—Because of the absence of confirmatory pathologic study one can only surmise that this was a true case of actinomycosis. Even so, it shows the value of x-ray therapy for healing sinuses.

#### Gas Bacillus Infection

Up to a short time ago, gas bacillus infection had nearly always presaged a fatal outcome. Radical surgery was usually the method of choice, with large associated morbidity. Later on chemotherapy was employed, without, however, materially changing the results, and mutilating operations were still necessary. In 1931 James F. Kelly<sup>20</sup> reported the effect of the utilization of x-ray therapy on infections for the treatment of gas gangrene in the belief that if this type of lesion could be controlled, the necessity for extensive mutilating surgery with its accompanying morbidity would be lessened. In a recent report covering twelve years' study Kelly<sup>21</sup> indicates

Because of economic reasons the patient returned to New York and continued her treatment at Bellevue Hospital.

On examination on April 16, 1931, the patient was thin, pale, and complained of abdominal pain and weakness. There was a large healed scar over the right lower quadrant, at the lower end of which were two draining sinuses. On the posterior lateral abdominal surface just above the crest of the ilium were two other draining sinuses. Because of the diagnosis and operative findings it was deemed advisable to treat the whole abdominal cavity with xray therapy. Four anterior and four posterior portals were outlined, and between April 16 and June 8, 1931, a 100 per cent dose (measurement of dosage at that time) was administered to each portal. The factors were high voltage x-ray therapy, 200 kv., 0.5 mm. Cu plus 1 mm. Al filter, 30 cm. distance, 10 by 15 cm. fields, administered in daily divided doses.

In August, 1931, the condition was improved but there was still present a slight drainage and another course of x-ray therapy was instituted. Two areas were used, an anterior and a posterior right pelvic area, and a 100 per cent dose was given each area. The factors were the same as previously used except the distance, which was 40 cm.

In October, 1931, sinus drainage, though slight, was still present and further irradiation was administered; 830 r were given through the anterior right pelvis. The same factors as previously used were employed. The patient continued to improve but on December 28 examination revealed that a small area of involvement was still present. A dose of 800 anteriorly and posteriorly through the pelvis was administered.

In May, 1932, six months later, although there were no visible signs of involvement and no definite symptoms of recurrence, it was decided to administer x-ray therapy as a prophylactic measure and a dose of 1,000 r was administered to the anterior and posterior abdomen through a large area without a localizing cone. X-ray examination of the chest at this time revealed no involvement there.

From then on the patient improved continuously and when last reported in June, 1942, was in good health.

Comment.—This case illustrated the necessity of repeated x-ray treatments in order to control a long-standing lesion with extensive intra-abdominal extension.

Case 4.—C. C., 29-year-old teamster, was admitted January 25, 1928, complaining of lumps on the left jaw. The condition had begun two years previously with a small lump on the left jaw, which a dentist suggested was due to an abscess of the third molar tooth area. Extraction of the molar and incision of the gum were carried out. The condition healed for three months. Then a mass reappeared in the jaw, protruded within the mouth, broke down, and extended into the cheek with a sinus draining to the outside, exuding a yellowish pus. A clinical diagnosis of actinomycosis was made.

On admission there was a large swelling over the left mandible, fluctuating slightly, with a draining sinus to it. Examination of the exuded pus was positive for ray fungus (actinomycosis). X-ray examination showed no bone involvement. X-ray treatment was administered in 25 per cent H. E. D. doses until a 100 per cent dose was given. High voltage x-ray therapy, 200 kv., 0.5 mm. Cu plus 1 mm. Al was used. A moderate reaction occurred and for a time there was some limitation of jaw movement. The patient was discharged as improved on February 13, 1928, but on March 2, 1928, he returned because of increased swelling due to recurrence of the condition. X-ray treatment was again administered in three doses of 25 per cent each to a total of 75 per cent. He was discharged improved and then on May 1, 1928, examination revealed a healed lesion with the sinus completely closed and no functional disability.

Comment.—Here we have a case which represents a possible source of infection through handling animals (cattle). Regarding treatments, the slow response at first was due to the administration of too small a dose of irradiation. Recurrence required further treatment.

Case 5.—L. D., a 14-year-old girl, was admitted October 25, 1928, complaining of pain and abscess in the chest and cough. The condition began in July, 1928, while the child was in the country, where she developed a painful mass on the chest wall to the right of the sternum. She was first taken to another hospital, where a hard, round, slightly tender mass was found on the anterior chest wall to the right of the sternum and extending from the third to the fifth rib. The mass was not fluctuant. An x-ray showed abscess formation. On August 8, 1928, at the hospital, operation was performed and a small amount of pus was evacuated from the swelling; it was found that the sternum was eroded and soft, with a sinus leading into the mediastinum, and also that the second and third ribs were involved. Resection of the diseased ribs and clearing out of the abscess cavity with drainage was done. The pus and biopsy of the removed tissues showed actinomycosis.

The patient was then transferred to Bellevue Hospital, with a large draining sinus in the anterior chest wall still showing actinomycosis and an ulcer on the left lower thigh, swelling of both breasts with sinuses in the right, and a draining sinus in the posterior neck area. X-ray therapy was advised and Treatment was administered to the instituted. anterior and posterior mediastinum and posterior neck and lower left thigh areas between October 25 and December 29, 1929. A 140 per cent dose was given the anterior mediastinum, 100 per cent to posterior mediastinum, 100 per cent to posterior neck areas. Marked improvement followed and on January 21, 1929, the lesion on the leg was healed, drainage was lessened but persisted from the chest and the left side of the neck, and there still remained a small draining sinus in the right breast. On January 28, 1929, additional treatment was begun to

same day or shortly after, in spite of treatment. In 10 cases gas infection symptoms were noted following operation, in 3 following amputation procedures, in one after appendectomy, in one after herniotomy, in one following colostomy for cancer of the rectum, in one after removal of a foot callus, and in one following incision and drainage of a scrotal infection. In 4 cases positive culture was not obtained before treatment. There were seven deaths following treatment; 6 cases healed free of infection after treatment; in one case, involving the perineum, incision and drainage followed x-ray therapy, which hastened healing. In one case no follow-up record could be ascertained. A résumé of the cases follows.

Case 1.—C. L., a 40-year-old man, was admitted on October 5, 1937, complaining of a large, painful, swollen scrotum. Examination showed an extensive infection with cellulitis involving the whole perineal and scrotal area. There was widespread crepitation present, and on October 5, 1937, he was given an emergency x-ray treatment of 150 r over the involved area and local wet dressings were applied. On October 7 and 13 other x-ray treatments were administered and supportive therapy was given. In the meantime the involved tissues were incised and drained. In spite of treatment, the patient died from acute toxemia on October 13, 1937.

Comment.—This case was evidently too far advanced when referred for x-ray therapy to derive any benefit from it.

Case 2.—T. B., a 30-year-old man, was referred on April 19, 1939, for extensive infection with marked crepitation of the soft tissues over the pelvis and perineum which had been present for a number of days. He was given sulfa drugs and neoprontosil. X-ray therapy was given on April 19 and 21 but in spite of treatment the patient succumbed.

Comment.—In this case, in our opinion, too long a period had elapsed before therapy was instituted to be of help.

Case S.—N. W., a man aged 56, was referred for x-ray therapy on October 24, 1939, because of definite gas infection of the foot following irritation of a previously sore area. Although he was in bad condition, x-ray therapy was administered over the whole lower leg and foot area and the immediate amputation of the foot was carried out. However, the patient failed to rally and died the next day, October 25, 1939.

Comment.—Too little therapy was given too late, and surgery followed too soon before the effects of irradiation could control the infection.

Case 4.—M. G. R., a man aged 35, was referred for x-ray therapy following infection of the mouth with gas crepitation of the soft tissues of the face and neck. Six treatments were given in the morning and afternoon of April 12, 1940, in the morning

of April 13, the morning and afternoon of April 15, and in the morning of April 19. High voltage x-ray was used, a 150 r dose given at each session. In spite of all treatment the patient succumbed on April 19, 1940.

Case 5.—A. A., a man aged 50, was referred for x-ray therapy because of the appearance of gas bacillus infection following amputation of the thigh several days earlier for a foot lesion. X-ray therapy was administered on May 26 and 27, 1940, to the amputated stump over the area of crepitation. Chemotherapy had been given and was continued, but in spite of treatment the patient succumbed on May 27, 1940.

Comment.—Perhaps had x-ray therapy been instituted before operation to the primary foot lesion gas infection might have been avoided. Again, the chemotherapy may have, as Kelly believes, inactivated the x-ray therapeutic effect.

Case 6.—J. F., a 75-year-old man, was referred on March 13, 1941 for x-ray therapy because of gas infection of the leg. Previously, on February 26, 1941, his leg was amputated for a diabetic gangrenous toe. He was given three treatments of high voltage x-rays on March 12, 13, and 14, besides antitoxin, chemotherapy, and diabetic treatment. However, in spite of treatment he succumbed on March 17, 1941.

Comment.—In this case old age, diabetes, and secondary infection all tended to counteract any effect x-ray therapy might have had.

Case 7.—M. L., a man aged 61, was admitted on March 23, 1938, to the psychopathic division following the first stage procedure operation for sigmoid cancer done at another hospital. Later closure of the abdominal wound was attempted with subsequent gas bacillus infection of the abdominal wall and hemolytic streptococcus blood stream infection. One treatment of high voltage x-ray was administered to the anterior abdomen and a dose of 150 per cent given. The patient expired shortly thereafter.

Comment.—Evidently death was due to the streptococcus infection and the patient was too ill to receive any benefit from x-ray therapy.

In those cases where recovery followed x-ray therapy, treatment was instituted early and in most instances was given twice a day, as recommended by Kelly. Our experience is limited to only a few cases, because most clinicians tend to rely on chemotherapy for infections and refer to the radiotherapist for assistance only after chemotherapy has failed and the patient already is in too poor a condition to reap the true benefit of x-ray therapy. In our hands early diagnosis and early instigation of x-ray therapy have proved to give the best results.

The following cases illustrate this fact.

Case 8.-R. L., a man aged 41, was referred on

TABLE 3.—GAS BACILLUS INFECTION

Name L. K.	Age 61	Sex M	Date Admitted Oct. 19, 1942	Site of Condition Foot	Other Treatment Sulfa, Dakin's	Previous Operation Callus	Date of X-Ray Treatment	
J. F.	75	M	March 13, 1941	Toe, dia- betes	solution	treated Amputation Feb. 26,	Sept. 19, 20, 20, 21, 21, 23 March 5, 6, 6	25, 1942 Died March
B. Mc.	10	F	March 5, 1941	Abdomen	Antitoxin, sulfa	1941 Appendix Feb. 24.	March 5, 6, 6	17, 1941 Cured Oct
A. A.	50	M	May 26, 1941	Foot		1941 Amputation.	May 26, 27	10, 1941 Died May
M. G. R.	35	M	April 11, 1940	Mouth		thigh None	April 11, 12, 12,	27, 1940 Died April
A. F.	30	M	Jan. 23, 1940	Foot acci-	Tetanus, sulfa	None	13, 15, 15, 17 Jan. 23, 24, 24, 25,	19, 1940
N, W.	56	M	Oct. 24, 1939	Foot	••••••	Sore, fol- lowed by amputa-	25, 26	Died Oct. 24, 1939
T. M.	43	$\mathbf{F}$	July 21, 1939	Leg		tion Amputation	July 21, 22, 22, 23,	Died July
D. B.	31	M	July 21, 1939	Abdomen		Post-hernia	23, 24, 24 July 21, 22	26, 1939 Cured July
T. B.	30	M	April 19, 1939	Pelvis peri-	Sulfa, neopron-	None	April 19, 21	22, 1939 Died April
P. B.	20	M	April 3, 1939	neum Abdomen	tosil	Appendec-	April 3, 3, 4, 4	22, 1939 Cured Sept.
R. L.	41	M	March 30, 1939	Abdomen	Sulfa	tomy Hernia	March 30, 30, 31,	5, 1939 Cured April
M, L.	61	M	April 7, 1938	Abdomen	•••••	Postoperative cancer, rec- tum; colos-	31; April 1 April 7, 1938	24, 1939
C. L.	40	M	Oct. 5, 1937	Scrotum and peri- neum	•••••	tomy	Oct. 5, 7, 13 Incision and drain- age	Died Oct. 13, 1937

that gas gangrene need no longer be regarded as a serious disease. Serum therapy is of no avail. Kelly believes that x-rays should be used early in gas infection, but that even in late stages it will still effect cure. Sulfa drugs are incompatible with x-rays and should not be used.

Kelly<sup>22</sup> very properly states that the "ease of application, the lack of complications, and the possibilities of doing so much good should make x-rays as a prophylactic measure a widely used agent for contaminated severe injuries. Their use is indicated in every contaminated ward in which tetanus antitoxin is ordinarily given, and we recommend this procedure. X-ray should be used promptly after the injury in the hope of preventing any and all types of organisms from establishing a growth."

Pendergrass and Hodes<sup>23</sup> state that there is overwhelming evidence in favor of irradiation of gas gangrene. Even in doubtful cases they advise prophylactic x-ray therapy. Their technic calls for x-ray therapy with moderate voltages and treatment administered morning and evening for three days in succession, 100 r with 1 mm. Al filter being given at each sitting. They recommend that great pains be taken to treat wide of the areas, for it is the toxin produced by the infection that kills the patient.

Kelly further states that "by means of x-ray therapy, infections due to the gas-forming organisms may be localized and the toxic action neutralized. Therefore, there is nothing about the situation which requires hasty or drastic measures, and the same surgical rules governing the

care of other infected wounds in relation to débridement should prevail. In the past, it was necessary to attempt surgical measures in the presence of a gas bacillus infection because of the seriousness of the disease and because no other treatment seemed to be effective in localizing the process. Since x-rays control the gas bacillus infection, all infected wounds now have the same status regarding débridement, if the term means the "excision" of tissues as indicated in its definition. However, if débridement can also mean "incision" of tissues, we think that it might be permissible, or even indicated, during the active stage of the disease, to permit escape of deeply trapped pockets of gas or collections of fluid. This applies only to cases that are far advanced when first seen by the radiologist or to cases in which infections develop after a penetrating type of injury such as a hypodermic injection."

In our technic we have treated the cases in one series and have employed the usual high voltage x-ray therapy, with 200 kv., 0.5 mm. Al filter and 40–50 cm. distance. Although we have not employed superficial x-ray therapy as used by others, the results achieved by them indicate that it is likewise a proficient method of treatment. We plan to use this type of therapy in our next series of cases.

There were 14 cases of gas infection referred to the Radiation Service for treatment, 12 men and 2 women (Table 3). All but four had already received treatment with antitoxin and chemotherapy before x-ray therapy was requested; some cases were so toxic that death ensued the same day or shortly after, in spite of treatment. In 10 cases gas infection symptoms were noted following operation, in 3 following amputation procedures, in one after appendectomy, in one after herniotomy, in one following colostomy for cancer of the rectum, in one after removal of a foot callus, and in one following incision and drainage of a scrotal infection. In 4 cases positive culture was not obtained before treatment. There were seven deaths following treatment; 6 cases healed free of infection after treatment; in one case, involving the perineum, incision and drainage followed x-ray therapy, which hastened healing. In one case no follow-up record could be ascertained. A résumé of the cases follows.

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Comment.—This case was evidently too far advanced when referred for x-ray therapy to derive any benefit from it.

Case 2.—T. B., a 30-year-old man, was referred on April 19, 1939, for extensive infection with marked crepitation of the soft tissues over the pelvis and perineum which had been present for a number of days. He was given sulfa drugs and neoprontosil. X-ray therapy was given on April 19 and 21 but in spite of treatment the patient succumbed.

Comment.—In this case, in our opinion, too long a period had elapsed before therapy was instituted to be of help.

Case 3.—N. W., a man aged 56, was referred for x-ray therapy on October 24, 1939, because of definite gas infection of the foot following irritation of a previously sore area. Although he was in bad condition, x-ray therapy was administered over the whole lower leg and foot area and the immediate amputation of the foot was carried out. However, the patient failed to rally and died the next day, October 25, 1939.

Comment.—Too little therapy was given too late, and surgery followed too soon before the effects of irradiation could control the infection.

Case 4.—M. G. R., a man aged 35, was referred for x-ray therapy following infection of the mouth with gas crepitation of the soft tissues of the face and neck. Six treatments were given in the morning and afternoon of April 12, 1940, in the morning

of April 13, the morning and afternoon of April 15, and in the morning of April 19. High voltage x-ray was used, a 150 r dose given at each session. In spite of all treatment the patient succumbed on April 19, 1940.

Case 5.—A. A., a man aged 50, was referred for x-ray therapy because of the appearance of gas bacillus infection following amputation of the thigh several days earlier for a foot lesion. X-ray therapy was administered on May 26 and 27, 1940, to the amputated stump over the area of crepitation. Chemotherapy had been given and was continued, but in spite of treatment the patient succumbed on May 27, 1940.

Comment.—Perhaps had x-ray therapy been instituted before operation to the primary foot lesion gas infection might have been avoided. Again, the chemotherapy may have, as Kelly believes, inactivated the x-ray therapeutic effect.

Case 6.—J. F., a 75-year-old man, was referred on March 13, 1941 for x-ray therapy because of gas infection of the leg. Previously, on February 26, 1941, his leg was amputated for a diabetic gangrenous toe. He was given three treatments of high voltage x-rays on March 12, 13, and 14, besides antitoxin, chemotherapy, and diabetic treatment. However, in spite of treatment he succumbed on March 17, 1941.

Comment.—In this case old age, diabetes, and secondary infection all tended to counteract any effect x-ray therapy might have had.

Case 7.—M. L., a man aged 61, was admitted on March 23, 1938, to the psychopathic division following the first stage procedure operation for sigmoid cancer done at another hospital. Later closure of the abdominal wound was attempted with subsequent gas bacillus infection of the abdominal wall and hemolytic streptococcus blood stream infection. One treatment of high voltage x-ray was administered to the anterior abdomen and a dose of 150 per cent given. The patient expired shortly thereafter.

Comment.—Evidently death was due to the streptococcus infection and the patient was too ill to receive any benefit from x-ray therapy.

In those cases where recovery followed x-ray therapy, treatment was instituted early and in most instances was given twice a day, as recommended by Kelly. Our experience is limited to only a few cases, because most clinicians tend to rely on chemotherapy for infections and refer to the radiotherapist for assistance only after chemotherapy has failed and the patient already is in too poor a condition to reap the true benefit of x-ray therapy. In our hands early diagnosis and early instigation of x-ray therapy have proved to give the best results.

The following cases illustrate this fact.

Case 8.-R. L., a man aged 41, was referred on

March 30, 1939, for x-ray therapy following gas bacillus infection of the abdominal wall after a herniotomy performed shortly before. X-ray therapy was given twice on March 30 and on March 31, and once on April 1. Two areas were treated; 150 r of high voltage x-ray were given each area at each sitting. Chemotherapy was given in the usual manner. The condition rapidly improved and the patient was discharged on April 24, 1939, completely cured.

Case 9.—D. B., a 31-year-old man, was referred for x-ray treatment on July 21, 1939, for gas infection of the abdominal wall following a herniotomy. Xray therapy was given to the whole abdominal wall on July 21 and 22. Following treatment the infertion promptly healed.

Case 10.-T. M., a woman aged 43, was referred on July 21, 1939, for gas bacillus infection following amputation of the thigh shortly before. Two areas were treated on July 21, and twice on July 22, 23, and 24. On July 26, 1939, the condition of gas infection was entirely cured.

Case 11.—L. K., aged 61, a man, was referred because of gas bacillus infection following secondary incision of a callous infection on the foot. Treatment previously with sulfa therapy and Dakin's solution had proved unavailing X-ray therapy was given on September 19, 1941, and twice on September 20, 21, and 22. He improved and on October 24, 1942, was discharged completely cured.

Case 12.—B. Mc., a 10-year-old girl, was referred on March 5, 1941, for x-ray therapy for gas bacillus infection about an appendectomy wound made on February 24, 1941. There was extensive crepitation over the abdominal area about the appendix wound. Antitoxin and sulfa drugs had already been given. Three x-ray treatments were administered, one on March 5 and two on March 6. She improved rapidly and was pronounced cured on March 10, 1941.

Case 13.-P. B., aged 20, a man, was referred April 3, 1939, for gas bacillus infection about an appendectomy wound. Four x-ray treatments, administered two each day for two days, were followed by

Case 14.-A. F., a man aged 30, entered the hospital in an emergency following an accident to his foot and subsequent gas infection. He received six treatments with relief. Because of legal action, no final follow up is available.

# Summary

War conditions, wherein large groups of people are placed in unfavorable environments, are apt to increase the menace from nonpyogenic infection. Chemotherapy is not always effective in this group of infections. X-ray therapy is a readily available effective method of treatment for control of persistent diphtheria carriers; it is the method of choice for the treatment of actinomycosis and is a better method of treatment for bacillus infection than chemotherapy or surgery. A report of cases treated is given.

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#### Discussion

Dr. R. C. Wende, Buffalo—Dr. Kaplan's paper regarding radiation therapy of the diseases mentioned is certainly timely and important, inasmuch as many of our returning men will be directly involved so far as rehabilitation is concerned. Without doubt, there will be many cases, chronic and otherwise, which will come to the attention of the radiologist for care. This may be either for alleviation or possible cure. Results of Dr. Kaplan's reported cases of actinomycosis and diphtheria carriers are excellent, inasmuch as some of his patients could be classified as being neglected cases.

The status of patients with gas gangrene or actinomycosis should be brought to the notice of the profession more sharply, so that the sufferers may get the benefits of irradiation.

Many of the so-called diphtheria carriers are merely harborers of diphtheroid bacilli, which are innocuous, and it is therefore generally considered necessary when such organisms are found in a patient's nose or throat on smear and culture, that a virulence test be made. However, in my mind, the best practice would be to eliminate any suspicious Irradiation, as Dr. Kaplan has pointed out. does this very well by changing the topography of the nasal and pharyngeal walls with other possible radio-biologic changes involving the deeper structures and also these cellular elements. Direct action on the organism itself should not be considered impossible, as this organism is pleomorphic, as is also the ray fungus.

The ordinary clinical types of actinomycosis generally show, on smear or tissue preparation, the ordinary club ray fungus. On culture, it is almost impossible to reproduce this characteristic in pure form.

Therefore, while we are dealing with a pleo- or polymorphous organism, it can be considered possible that radiations, either from a tube or radium applicator, might have some direct effect on the cycle of life. Of course, secondary effects on the organism from cellular and vascular changes in the human body are more apparent and possibly more important.

The prevention of chronic indurated nodules or sinus formation in these cases is of prime importance. A careful history on examination should make one suspicious of actinomycosis, so that radio therapy may be instituted early, before there is any tissue breakdown.

In gas gangrene cases, even in widespread involvement, it is important to treat the patient as early as possible, preferably several times daily. This infection is generally resistant to most forms of therapy, including mutilating drainage and surgery. Small doses of irradiation, given at frequent intervals, apparently are more efficacious than the larger doses, and the ray hardness is of very little importance. Some operators use only a filter of 2 or 3 mm. Al and repeat every eight to twelve hours with a dosage of from 75 to 150 r. In view of the fact that this infection is resistant to chemotherapy it is readily seen that it is of prime importance to treat the patient as soon as possible after the infection, of course taking into consideration cleansing or excision of infected, lacerated wounds.

The bodily changes due to irradiation are multiple and complex. That is, we have changes in the circulatory systems, both hemic and lymphatic, in the cellular elements, both fixed and circulating, and also in the vascular walls. Acute inflammations where the cellular infiltration consists mainly of leukocytes, either lymphocytes or neutrophils, respond quite readily to smaller doses producing a possible early erythema with radiobiologic changes in cells which elaborate ferments, enzymes, and antibodies.

As Bengt Sylven's work in a 1940 issue of Acta Radiologica reads, he is able to demonstrate in irradiated tissue of animals sulfuric acid in surrounding connective tissue. He does this with a basic lead acetate preparation, which discolors and is studied microscopically. He claims that the sulfuric acid is a product of decomposition of heparin, which is an anticoagulant of a mucoitin polysulfuric acid in ester linkage. Apparently it is the function of mast cells with cytoplasmic granules of heparin to carry the anticoagulant to the circulating blood. He also noticed that after irradiation, of course in larger doses than therapeutic, that the granular content of the mast cell cytoplasm was markedly decreased. The ultimate fate of the cell is unknown; it probably goes on to destruction. He also quotes Bierich, who found in 1922 that mast and connective tissue cells increase up to five days after x-ray or gamma irradiation.

The normal acid-base equilibrium would be easily changed with the presence of such cellular products of decomposition. Many organisms are extremely sensitive to a slight shift of the cultural pH.

With the doses outlined by Dr. Kaplan there is a large margin of safety of operation to the patient. That is, the involved areas to be treated are usually not too large, and the dosage is very small. In the treatment of naso-diphtheria, even the small dosage over the front of the face is safe as far as late occurrence of late cataract is concerned. For widespread intestinal or cecal actinomycosis, even with large fields of treatment, there should be no diarrhea or change in the blood picture.

The slightly larger dose with the ½ mm. Cu filter is necessary in chronic cases because of the filtering effects of the degeneration of cells, hyalin, calcareous, or otherwise, in the more chronic cases. Therefore, if the patient is seen early before the tissue becomes radio-resistant, smaller doses and quicker results should be expected.

Dr. Andrew H. Dowdy, Rochester, New York—In 1942 Dr. Sewell and I reported on the treatment of 15 cases of clinical gas gangrene. All but one patient received irradiation or irradiation plus one of the sulfonamides. This one received sulfadiazine only. Of these 14 patients, 5 died. One was a definite therapeutic failure; another died of carcinoma of the testicle thirty days after control of the infection. The remaining three deaths occurred in patients 68, 70, and 85 years old, respectively. The Clostridium welchii infection did not seem to have any more to do with their exitus than did coexistent pneumonia, advanced arteriosclerosis, and general debilitation.

In this same paper we reported on our experience with experimental Cl. welchii infection in 255 dogs. Fifty of these dogs received roentgen irradiation. The sulfonamides studied were N<sub>1</sub>-Butyryl sulfanilamide, sulfanilamide, and sulfadiazine. Of the sulfonamides we found sulfadiazine to be superior.

We further found sulfadiazine to be superior to roentgen irradiation. In 25 of the dogs that were given a relatively small amount of inoculum so that 20 per cent of the controls recovered, we salvaged 36 per cent with irradiation, but if we increased the size of the inoculum to that given the dogs receiving sulfonamide therapy, the salvage with roentgen irradiation was not greater than in the control group.

We have continued our studies with a very much larger number of dogs. These latter studies have included three other members of the clostridial group of organisms capable of producing clinical gas gangrene. We have also studied the value of sulfathiazole. While sulfadiazine does not prove equally effective against all the organisms studied, it is superior to the other sulfonamides employed or to roentgen therapy. Further study also convinced us that roentgen therapy and sulfonamide therapy should not be combined.

Our clinical experience with roentgen therapy of clinical gas gangrene convinced us that it was of value. Experimental study in dogs indicated it to be of some value but that it was of less value than sulfadiazine. Consequently we have discontinued roentgen therapy in the treatment of clinical gas gangrene and now resort to the sulfonamides, preferably sulfadiazine.

# Therapeutics

# CONFERENCES ON THERAPY

THESE are actual reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the June 1 issue and will concern "Management of Disorders of the Thyroid: I. Hyperthyroidism."

# Chemotherapy of Infections of the Urinary Tract

Dr. C. H. Wheeler: The subject today is the treatment of urinary tract infections. As you know, the treatment of such infections as urethritis, prostatitis, cystitis, pyelitis of pregnancy, and pyelonephritis was unsatisfactory for a long time. Many substances and procedures which we once used-namely, urotropin, ketogenic diet, acidification, alkalinization, and mandelic aciddid not seem to work so well or so frequently as we would have liked. Today the outlook is better.

Dr. Modell will open the conference with a discussion of some of the pharmacologic aspects of

this field of therapy.

Dr. Walter Modell: The pharmacology of urinary antiseptics used to be an elegant subject for discussion because there were so many drugs to talk about. One could discuss them and condemn them and keep going for a long time. But the subject has become much simpler and shorter in recent years, and from the patient's point of view far more satisfactory. In a recent review of the subject only two types of drugs were mentioned: mandelic acid and its immediate derivatives, and the sulfonamide group, in contrast to earlier reviews in which many drugs used to be considered. In another recent review of urology, under the head of urinary antiseptics, no drugs other than the sulfonamides were discussed. One gets the impression that the discussion of any drug other than the sulfonamides in the treatment of this group of infections is of historic interest only. Yet this is not really the case; there are effective drugs other than sulfonamides which still have a place in the therapy of urinary infections; there are drugs still being used which have no place at all in the modern treatment of these infections; and, perhaps most important of all, the problem of an early and exact diagnosis still is of paramount importance and must not be neglected because we have sulfonamides available.

Drug manufacturers are reluctant to bury their dead. Some of the ghosts which still haunt the advertising pages of our medical journals stem from the abandoned field of chromotherapy. There used to be a time when a common form of

treatment of urinary infections was to color the urine. One could color it blue, or green, or orange, or yellow, depending largely on one's taste and in some cases on the kind of professional samples which were lying around the office. This was practiced rather widely until it became apparent to some more acute observers that the bacteria noticed the color of the urine far less than did the patient. Nevertheless, the dyes are still being used, although I believe that they are on their way out.

One of the drugs which has stood the test of time and which should not be entirely forgotten in spite of the more effective newcomers is meth-Helmholtz has shown recently that strains of escherichia coli which were resistant to the sulfonamides and mandelic acid could be treated effectively by methenamine. This drug, therefore, still has a place, although it is now a minor one. It is well to remember that methenamine is effective only in acid media, in which it is broken down to liberate an effective component. Concentrations of about 200 mg. per cent in the urine are necessary; the pH must be 6 or less for therapeutic effectiveness. Concentrations of methenamine greater than 200 mg. per cent are irritating to the bladder; the therapeutic range,

therefore, is rather narrow. Mandelic acid was very unfortunate because,

although it constituted an important advance when discovered, it came so soon before sulfonamides that it never really got a chance to be widely appreciated. It followed logically from the use of the ketogenic diet in the treatment of urinary infections and came as a result of a search for an effective hydroxy acid which would not be metabolized by the normal body. Mandelic acid has the advantage over the sulfonamide derivatives in its effectiveness in infections by Streptococcus faecalis, in which condition none of the sulfonamides is said to be useful. Mandelic acid must be present in the urine in concentrations of 0.5 per cent or over, and the urine must be decidedly acid, with a pH of 5.5 or less.

The chief disadvantages of mandelic acid are

its taste, which is exceedingly difficult to disguise, the fact that it must be taken with a strong acidifying agent, and that it is expensive. In connection with mandelic acid it is necessary to modify the diet rigidly so that its ash is acid. Nevertheless, this group of drugs is effective in a wide range of infections. There are still many instances in which the sulfonamides are not effective or may not be used; in such cases mandelic acid or its derivatives may be the only really effective agents available.

The sulfonamides have, of course, completely overshadowed the field of the therapy of urinary infections. Today I think we can consider only two members of this group as being of prime importance: sulfadiazine and sulfathiazole.

Sulfanilamide and sulfapyridine have been shown to be less effective than these. A more recently introduced member, sulfacetamide, has been said to be of particular value in urinary infections. In an article from the Mayo Clinic, entitled "The Bacteriostatic Action of Sulfadiazine, Sulfathiazole, Sulfacetamide, and Sulfapyridine in Bacteria Isolated from Urinary Infections," which summarizes the differences between these sulfonamide derivatives in the treatment of urinary infections, the evidence is that sulfacetamide is not the drug of choice in urinary infections, but that it does belong in the group of effective drugs.

The superiority of the sulfonamides over other drugs comes not only from their great bacteriostatic properties but also from their unique ability to permeate all the tissues and fluids of the body. Thus they are effective in the parenchyma of organs, surrounding tissues, and mucous membranes.

The solubility of the sulfonamides in the urine is of prime importance, since renal complications are in the main due to the precipitation of the sulfonamides and their acetylated compounds from the urine in some portion of the urinary system. As a group they are relatively insoluble compounds—sulfathiazole and sulfadiazine especially so. With the exception of sulfadiazine, the acetylated compounds are less soluble than the free sulfonamides. The solubility of these substances is increased by alkalinization. Although the sodium salts of the sulfonamides are soluble, sulfonamides so administered are excreted as the free sulfonamide.

It has been stated that the effective concentration of sulfonamides in urine is close to 100 mg. per cent, in in vitro experiments. This is close to the limits of solubility of sulfadiazine and sulfathiazole in urine at pH 7 or 7.5. Bear in mind, therefore, that in attempting to achieve a particular concentration of these drugs in the urine you may be approaching the point at which the sulfonamides precipitate out of solution and cause renal damage. The urine volume must be sufficient to dissolve all the sulfonamides excreted if toxic renal effects are to be avoided.

Mixtures of sulfonamides with mandelic acid and with methenamine are being sold these days. I know of no advantage which comes from such mixtures. Usually in such combinations only one substance is present in amounts sufficient to produce any therapeutic effect; the other drugs are just "trimmings."

Much used to be made of concentrations of these drugs in the blood stream and in the urine. I notice that the tendency is more and more to follow a fairly fixed schedule of dosage and not to try to produce high levels of sulfonamide concentrations in the blood and in the urine. Perhaps we shall hear more about desirable concentrations of the sulfonamides from subsequent speakers.

One agent, phenothiazine, recently suggested as a urinary antiseptic, ought to be mentioned and disposed of quickly. Several years ago this substance was tried as a vermifuge and intestinal antiseptic. It resembles methylene blue in many of its chemical characteristics. It is effective as a urinary antiseptic, but in a recent series of eight cases, hemolytic anemia was produced by this substance in six. Phenothiazine therefore has no place in the therapy of urinary infections, since we have far more effective and safer agents.

DR. WHEELER: Dr. McLellan will continue the discussion.

DR. ALLISTER M. McLellan: The treatment of genitourinary tract infections has been revolutionized in the past ten years by the introduction of (1) simple diagnostic procedure, namely, the excretory urograms, and (2) the sulfonamides.

One cannot emphasize too strongly the importance of careful diagnostic studies before treating infections in the genitourinary tract, since the infections may be the result of an abnormality which in itself is of greater importance to the patient than the pyuria.

A careful physical examination may suggest specific pathologic conditions in the genitourinary tract. Several examples may be cited. Skin infections or boils may be the precursor of a perinephric abscess. Abnormal neurologic conditions may be the cause of residual urine with its sequelae. Abdominal examination may reveal an enlarged or tender kidney. Psoas spasm may mean a perinephric abscess. A suprapubic mass is a full bladder until it is proved to be something else. Inguinal gland enlargement may mean carcinoma or a primary lesion of the penis. scrotal sinus may be caused by tuberculosis of the epididymis. Scrotal palpation may reveal early tuberculosis of the epididymis, and testicular enlargement may be caused by a teratoma or

a gumma, etc. The prepuce should be retracted to examine the glans. The meatus may be of pinhole size, causing serious back pressure. Pus from the meatus should be examined by the Gram stain and cultured for gonococci. Palpation of the urethra may reveal a periurethral abscess.

The collection and prompt examination of all specimens of urine is most important. The male patient should void in two glasses; this may grossly show that the pus is coming from the anterior urethra. In the female, if a casual specimen is positive, a catheter specimen should be obtained to avoid contamination. A specimen of urine from the male for culture is obtained by retracting the prepuce and washing off the glans penis. As the patient continues to void, a specimen is collected in a sterile test tube in "mid-air," as it were.

Rectal examination will determine the anal sphincter tonicity and the mucous membrane changes in the canal itself. The rectal mucosa is palpated routinely at this time. Prostatic palpation will reveal the size, shape, and consistency of that organ, as well as irregularity, edema, and fluctuation. An enlarged, smooth, rubbery gland means benign hypertrophy; a hard irregular gland means carcinoma, tuberculosis, or calculi; an edematous gland is usually inflamed; and a fluctuating gland has an abscess. Palpation of the seminal vesicles and base of the bladder should always be carried out, and bimanual examination may be helpful when carcinoma or calculi are present in the bladder. Prostatic secretion may be obtained for microscopic examination at this time if the condition is not acute.

A plain x-ray and an intravenous pyelogram is a simple benign procedure which gives the physician a wealth of information. The plain x-ray may show an opaque stone, a large kidney (this is significant when its fellow is normal), a soft shadow which may suggest perinephric abscess or residual urine in the bladder if taken after voiding. The intravenous pyelogram may indicate a relatively nonfunctioning kidney, but, nevertheless, sufficient dye may be excreted to demonstrate obstruction and filling defects caused by stones, tumors, or blood clots. If all findings are normal with this procedure, the disease may be in a part of the urinary system which does not grossly disturb function or cause anatomic defects; for example, pyelitis or cystitis.

By a physical examination, simple laboratory tests, and excretory pyelogram a satisfactory working diagnosis may be made so that the patient can be intelligently handled. Cystoscopy is only indicated for confirmation studies or biopsy.

The history of the treatment of urinary tract infection may be divided into three periods:

(1) the preketogenic period, (2) the ketogenic period, and (3) the sulfonamide period.

1. Preketogenic Period.—Prior to 1932 there were innumerable urinary antiseptics which did or did not color the urine. Many caused digestive disturbances. I have been convinced from my own experience that the patient's recovery or improvement was often the natural course of the disease, rather than the result of treatment.

The Ketogenic Period.—The ketogenic diet was ushered in with the discovery that the urine of patients who suffered from ketosis had bacteriostatic properties. This, was attributed to the beta-hydroxy-butyric acid. along this line resulted in the discovery that mandelic acid had equal value. Later, calcium mandelate was introduced because it was less irritating to the gastrointestinal tract, and today in this group it is the drug of choice, although in cases with renal insufficiency and in pregnancy it may produce acidosis. This drug acts only in the excretory ducts of the urinary tract and, therefore, is effective only on the exudate superficial to the mucous membrane, whereas the sulfonamide drugs are carried deep into organs to the infecting agent and into the mucous membranes by the tissue fluids. Calcium mandelate is a satisfactory urinary antiseptic for the commoner uncomplicated urinary tract infections. Ambulatory patients tolerate it well because its unpleasant effects are usually limited to gastric distress and there are no specific systemic reactions. The optimum dose of calcium mandelate is 2 Gm. every four hours; a total of 12 Gm. per day. The output of the urine is limited to approximately 1,200 cc., which would give a concentration of about 1 per cent mandelic acid in the urine. The pH of the urine should be 5.5 or less for the best results.

3. The Sulfonamide Period.—In 1935 the discovery of sulfanilamide, followed by its derivatives, opened a new field in the therapy of infections of the urinary tract. Of these drugs, sulfathiazole and sulfadiazine have proved to be the most useful.

The discovery of pus alone in the urine is not an indication for the administration of the drug. Pyuria is not a disease. As stated previously, a working diagnosis can usually be made by smears, culture, and intravenous pyelogram. Cystoscopic procedures are reserved for specific treatments and, when necessary, for diagnostic confirmation.

One must bear in mind that, with the exception of the specific infections, gonococci, and tuberculosis, there invariably exist pathologic changes in the tissues of the urinary tract before the invading organism arrives. These changes may be due to a stone, tumor, stricture, etc.,

many of which cause retention of urine or pus. Recurring attacks of pyuria should always call for an intravenous pyelogram.

Gonorrhea is treated with 1 Gm. of sulfathiazole four times a day for seven days. I should especially like to call your attention to the fact that no local treatment is indicated. One may expect failure in about 5 per cent of cases of gonorrhea treated with sulfonamides. The test of cure in these patients is both culture and stained smear of any secretion from the meatus, first glass of voided urine and prostatic secretion. Cultures are made on chocolate agar grown under increased carbon dioxide tension.

Cases of nonspecific urethritis do not respond well to sulfonamides. Nontuberculous epididymitis and prostatitis do well with rest and may be helped with small doses of sulfathiazole or sulfadiazine, but the cause of the disease should always be investigated.

A case of pyelitis or pyelonephritis always indicates the need for an intravenous pyelogram. Ureteral drainage may be indicated if the obstruction is in the ureter, and bladder drainage if the obstruction is in the urethra or bladder neck.

One Gm, of the sulfonamides four times a day for five days rarely causes intoxication and almost invariably gives excellent results in uncomplicated cases.

Renal complications due to the sulfonamides clinically fall into two groups: (1) patients with an oliguria resulting in nitrogen retention. The urine in these cases shows a small amount of albumin and rarely blood or crystals; and (2) patients in whom the drug crystallizes and who experience renal colic or have obstruction in the urinary passages by conglomerated masses of crystals. Both types are best handled by forcing fluids and alkalies, and not by the immediate passage of catheters to both kidneys. scopic treatment may be necessary in the second but it has not been necessary in my experience. Since we now know that the crystals can form in the tubules of the kidneys themselves and cause anuria, the passage of a catheter up the ureter in these cases might do more harm than good. Such complications are best prevented by the liberal use of fluids.

Dr. Wheeler: Finally, I should like to ask Dr. Gordon Douglas to say something from the standpoint of the gynecologist.

Dr. R. Gordon Douglas: The obstetrician or gynecologist is interested in urinary tract infections because of the frequency with which these complications are encountered in everyday practice, the reasons being the anatomic changes that are associated with pregnancy in the way of dilatation, tortuosity, increase in length and lateral displacement of the ureter, and the tendency to develop a mild hydronephrosis in at least 80 per cent of all pregnant patients. The gynecologist also has to deal with urinary tract infections because of changes following the development of tumors, surgical procedures, and complications in the bladder following operative procedures.

It is of a good deal of interest to us then to know something about the normal status of the urinary tract from a bacteriologic point of view prior to the onset of pregnancy. My own experience indicates that the healthy urinary tract is free from organisms at all times.

It is of interest to note that Marple, who recently studied the urinary tracts of a large number of women admitted to a medical service. found 69 per cent of the cultures negative, but in 19 per cent he found a bacilluria associated with pyuria and in an additional 10 per cent he found bacilluria alone.

Jaameri, in Sweden, has recently analyzed the results of urine cultures of some 600 patients who were pregnant or in the early puerperium, and found the colon-aerogenes group of organisms present in some 16 per cent of the cases. The experience of the latter investigator is quite in line with our own-i.e., that in early pregnancy the urinary tract, if it has previously been normal, is sterile. There is a tendency for bacilluria to develop as the physiologic hydronephrosis develops and it always, in our experience, precedes the development of pyuria.

As Dr. McLellan stated, the early signs of pyuria are almost invariably asymptomatic. By the time the patient develops clinical signs of the disease in the way of pain, fever, or chills, we are usually dealing with a well-advanced stage of the disease. We are then confronted with the problem of treating an infection caused by a temporary physiologic abnormality. The treatment is usually directed toward the infection rather than the anatomic changes.

Our experience with all urinary antiseptics. with the exception of mandelic acid and the sulfonamide drugs, indicates that they have been entirely ineffective. The sulfonamide drugs which we have employed have been limited largely to three compounds-i.e., sulfanilamide. sulfathiazole, and sulfadiazine.

I used sulfacetamide when it was first introduced, and in my experience the value of that drug is comparable to that of sulfanilamide. There is no essential difference.

Formerly, when we employed sulfanilamide it was our custom to restrict fluids during the administration of the drug in order to keep the urinary output below 1,000 cc. We have altered this practice in the employment of sulfathinzole and sulfadiazine, and we make every effort to maintain a daily urinary output of at least 1,500

By adherence to this technic we have not encountered any of the serious renal complications, such as hematuria or renal colic, that have been so frequently reported by others. In addition, if we have a patient who has rather poor renal function, the dose is reduced accordingly. It may take only one-half the dosage to obtain the same results. It has always been our practice to obtain frequent determinations of concentration of the drug in both the urine and the blood. In my experience the concentration of the drug in the blood or urine does not give any definite indication of what therapeutic effects we are going to obtain. The information is dependent more on the nature of the infecting organism and the duration and extent of the pathologic process.

## Case Reports

A few short case histories may serve to illustrate some of our results.

Case 1.—For example, there is the case of a young woman, 19 years of age, who has been in the Woman's Clinic for the past month. She gave a history of mild urinary tract infections at the ages of 3, 5, 6, and 15 years. This patient was entirely asymptomatic and afebrile throughout her pregnancy. Intravenous pyelograms revealed a bilateral pyelonephritis, more marked on the left side, with greatly distended renal pelves and ureters. The disease was detected because of pyuria. The causative organism, Bacillus aerogenes, disappeared following sulfathiazole therapy. Despite the extensive involvement the patient has had no symptoms.

There is one difficulty in interpreting the results. Our infections are almost invariably (93 per cent) caused by one of the members of the colon-aerogenes group of organisms. After the administration of sulfonamide one can, in the great majority of instances, eliminate at least temporarily the causative organism from the urinary tract, but in our experience it is very common, particularly in the patient who has a chronic infection, to find a nonhemolytic type of streptococcus, and in some instances an anaerobic streptococcus as a residual chronic invader of the urinary tract. This was true in the case history just cited. I don't know the significance of these organisms. I look upon them as a secondary invader, as one would find in wound infection. That may or may not be correct. As long as these organisms are found on culture, it seems to me that we are not positive that the urinary tract infection in question has been eliminated. As far as I am aware most of the clinical reports which have come out of this country have not referred to this particular problem.

Case 2.—Let me present a historical review of a patient with a chronic infection last seen in our clinic one week ago.

She was treated with ketogenic diet, mandelic

acid, pelvic lavage, cystoscopy, and sulfonamides. There were positive cultures practically throughout the entire period of six years. The first time a negative culture was obtained was following the administration of sulfanilamide, and negative cultures were obtained on several occasions after sulfadiazine. This patient was seen in the Outpatient Department one week ago and a positive culture was obtained. It goes to show how ineffectual are urinary antiseptics in patients with chronic pyelonephritis.

In relation to some of the statements that I just made, I might mention the results of an analysis I made recently of a small group of our patients. At the time of the first culture in the antepartum group, in thirty instances we were dealing with the colon bacillus and in one instance with B. aerogenes. We had only one patient in whom the infection was due to Staphylococcus aureus. In the postpartum group the first culture revealed B. coli in forty-seven instances and B. aerogenes seven times. This relationship is what we see in our routine practice, year in and year out. In the last cultures the colon bacillus was present in one of the antepartum patients and B. aerogenes in two. In the postpartum group the colon bacillus was present in 12 and B. aerogenes in 2 patients. The Staphylococcus albus and the nonhemolytic streptococcus were present relatively frequently postpartum. Diphtheroids were occasionally found. The Staphylococcus aureus was eliminated. Only one-half of the patients had absolutely sterile urine when last seen.

If we look at the problem in another way—i.e., from the standpoint of elimination of the causative organism, which is the usual method of reporting the results in the literature—and relate our results to the drug employed, we find that in the antepartum group where sulfanilamide was employed, the causative organism was eliminated in 11 and was still present in 10 patients. In the postpartum group, with the same drug, the organism was eliminated in 20 and was still present in 14 patients. With sulfadiazine and sulfathiazole, the causative organism was eliminated in all but one patient during the course of therapy.

If the index of cure is based solely on the microscopic examination of the sediment of the urine, we will frequently overlook streptococci or other organisms present in small numbers. Pyuria may persist where the colon-aerogenes infection has been eliminated, and only a nonhemolytic streptococcus may be found on culture.

DR. WHEELER: We would like now to have some discussion. Do you have questions that you would like to ask the participants?

STUDENT: What percentage of urinary infections would clear up by themselves without any treatment at all?

Dr. McLellan: In the uncomplicated cases I

would expect practically 100 per cent to clear up spontaneously; in the complicated cases if the infection did clear up I would expect it to return.

Dr. Modell: I wonder if we could get a statement as to which of the sulfonamide drugs is preferable in these infections, sulfadiazine or sulfathiazole?

DR. WHEELER: Dr. Douglas, from your expe-

rience, which is the drug of choice?

Dr. Douglas: As far as I can tell from the information available there is practically no difference between sulfathiazole and sulfadiazine in the matter of therapeutic effectiveness. However, in my own experience, sulfadiazine causes the patients less distressing subjective symptoms.

Dr. Wheeler: What about your experience,

Dr. McLellan?

Dr. McLellan: I have had excellent results in 95 per cent of my cases in the treatment of gonorrhea with both sulfathiazole and sulfadiazine. However, 90 per cent of experience has been with sulfathiazole. If one drug failed to cure the patient, the other also failed.

STUDENT: If the sulfadiazine works mostly behind the kidney epithelium, is it necessary to put a restriction on the maximum amount of

urine?

Dr. McLellan: The output of urine should be at least 2,000 cc. daily to protect the kidneys. I see no objection to its being doubled. The concentration of the drug in the blood and tissues is far more important than that in the urine.

DR. WHELER: Do your results depend on the

type of infecting organism?

Dr. McLellan: In the uncomplicated cases, in the absence of a tumor, retention of urine, or a stone, our results are good in all common types of infections except in that by the proteus and nonhemolytic streptococcus. The drug has no effect on tubercle bacilli in the urinary tract.

Dr. Harry Gold: Has there been any experience here with acquired resistance to any of the sulfonamides by any of the organisms encountered either in gynecology or in general urology?

DR. WALSH MCDERMOTT: I may have something to report on that, Dr. Gold. The Streptococcus viridans which we have been getting from the urines of these patients on Dr. McLellan's and Dr. Marshall's service are in many cases resistant to 10 mg. per cent of sulfadiazine, whereas the Str. viridans which we get from the blood of patients with subacute bacterial endocarditis is not resistant to the drug.

Dr. Gold: Suppose we turn the question this way: Have you encountered any cases that resisted one of the sulfonamides and then was cured by another? That relates to the question of shifting from one preparation to the other if matters don't go well with the first.

Dr. Douglas: I have a case in point. A patient received sulfanilamide for a period of six days, a daily dosage of 5.4 Gm. without therapeutic effect. She responded promptly, within a matter of two days, when sulfadiazine was administered following an interval of two days without medication. I have had other comparable experiences.

Sulfathiazole and sulfadiazine are more effec-

tive drugs than sulfanilamide.

Dr. McKeen Cattell: I take it that those cases throw no light on the question of a particular organism acquiring drug-fastness.

Dr. Douglas: I don't believe so. There is the fact that in extensive infection with pyuria an inhibitor, such as para-amino-benzoic acid is present in the urine, and in those instances the drug must be continued for a relatively long period of time. If there are focal abscesses in the urinary tract, the therapeutic response is poor or delayed. I do not believe that our experience necessarily indicates that the organism has become drug-fast.

Dr. Modell: I should like to ask a question along the line of Dr. Gold's. It is accepted that sulfadiazine or sulfathiazole are approximately equally effective in urinary infections. Do you know of cases in which one of these two, either sulfadiazine or sulfathiazole, was not effective and the other was?

Dr. Douglas: I know of instances in which, after the lapse of time, there was response to one drug although there had been no response to the other. I do not believe that answers your question.

Dr. Wheeler: Dr. Cattell, would you say a word about the pyridium-sulfonamide combination? It introduces a new point of view.

Dr. Cattell: That has been a subject of recent interest, arising from the observations of Neter, who observed in test tube experiments that a combination of pyridium with the sulfonamides, both at subeffective concentrations, will destroy the organism. Incidentally, it should be mentioned that the toxicity of the sulfadiazine is decreased by the simultaneous administration of pyridium, and the question arises as to whether that combination might not be more effective in urinary infections. I think Dr. McDermott has firsthand knowledge on that point.

Dr. McDernott: We repeated Neter's work, and in the test tube, with B. coli, a small amount of sulfadiazine when given with pyridium is more effective than that amount of sulfadiazine alone.

That also holds true for pneumococcus type I in the test tube. However, this has not been borne out for pneumococcus type I infection in mice. In other words, in vivo we have not found a synergistic value, nor so far in the patients whom we have studied with Dr. McLellan.

Dr. Modell: Pyridium has practically no bacteriostatic properties in the test tube.

Dr. McDermott: Very little, in the studies which we have made.

Dr. Wheeler: If one looks through the charts from the urology service one notes that most patients nowadays who have an operation for benign hypertrophy of the prostate receive sulfadiazine or sulfathiazole prophylactically. Has that proved to be a worth-while procedure?

DR. McLellan: It should not be given routinely. I think the drug should be given if the urinary tract is badly infected before the operation, along with adequate catheter drainage as indicated. I think the drug is given entirely too often both before and after operation.

DR. WHEELER: Another thing that is being done on the urology service now is to give the patients sulfaguanidine or sulfasuccidine before implantation of the ureters in the bowels. Has that proved worth while?

Dr. McLellan: All the patients have done extremely well, but I attribute the success of the operation to the surgical skill of the resident urologist. No drug will ever make up for incompetent surgery.

DR. WHEELER: Dr. Barr, do you have any comment?

Dr. DAVID P. BARR: I should like to ask Dr. McLellan about the treatment of the "gleet," chronic gonorrhea.

Dr. McLellan: A patient complaining of "gleet" when first seen should be examined by smear and culture to determine whether or not he has gonorrhea. If gonococci are present, good results can be anticipated with sulfathiazole. If it is a case of nonspecific urethritis, routine use of the drug is disappointing. The principal causes of nonspecific urethritis are poor sexual hygiene and stricture of the urethra, in the presence of chronic prostatitis. Prostatitis is prolonged and aggravated by ungratified sexual excitement and by prolonging the sexual act. Most cases of prostatitis give no history of gonorrhea. Stricture of the urethra with associated prostatitis will clear up with dilatation of the stricture. The prognosis is good in nonspecific urethritis, and in the absence of stricture a spontaneous recovery is assured. The most important factor in "gleet" cases is for the physician to be competent to determine whether or not the patient has a contagious disease. This group of patients is very much overtreated. Massaging the prostate, bladder irrigations, and sound treatments are carried to a ridiculous degree, in my opinion. I rarely rub a prostate for therapeutic purposes.

Dr. Barr: In those cases do you find any predominant group of organisms?

Dr. McLellan: It is invariably a mixed infection.

Dr. Barr: And you feel there is no utility in the drugs in those cases?

Dr. McLellan: I feel that the drug is of little value in a case of nonspecific urethritis.

DR. WHEELER: Most general practitioners, including the ones who used to send the cases of "clap" to the urologist, treat them now with sulfadiazine and sulfathiazole. Is that permissible?

Dr. McLellan: Any physician can treat simple gonorrhea, provided he is qualified to make a diagnosis (less than 50 per cent of urethritis cases are specific), to administer the sulfonamide, and to make a test of cure, which means a smear and culture.

Dr. Wheeler: You do not pass sounds?

Dr. McLellan: I do not pass sounds and do not rub prostates.

DR. WHEELER: Should the general practitioner treat a gonococcal urethritis in a female?

DR. Douglas: In the female, of course, gonorrhea involves not only the urinary but the genital tract. I think Dr. McLellan has answered that question. Any person who has the ability to make the diagnosis, can determine the cure, and has sufficient knowledge to direct the sulfonamide therapy could adequately care for these patients.

In my opinion the drugs seem to be a little more effective in the female than in the male. Recently I reported a group of nearly 200 patients in whom the average time for cure with sulfadiazine (cultures were taken every two hours) was during the ninth to the twelfth hour after the administration of the compound. We are treating patients now, experimentally, by administering 8 Gm. of the drug in two doses over a period of only four hours with no therapy thereafter. At the moment, it appears effective.

The average general practitioner not prepared to take cultures for the purpose of diagnosis will miss the diagnosis very frequently. Only one-half as many patients with gonorrhea can be recognized by smears as by cultures, and conversely, only two or three per cent of the patients who cannot be recognized by culture can be detected by smear.

DR. CATTELL: If I understand the position of the urologist correctly, he attributes no part of the curative action of the sulfonamide to its local presence in the urinary tract?

The volume of urine and the pH of the urine would hardly be expected to play a part, nor the combination with pyridium, if we are to attribute the curative action to the concentration in the tissues. Is that your view?

DR. McLellan: Yes, I feel that it is the concentration in the blood and not in the urine.

Dr. Gold: Would you state to what extent you depend on the drug blood levels as a guide to dosage? Do you adopt a routine plan of dosage and simply pursue it until the patient is cured, or do you take frequent blood levels and aim to attain a particular level as a means of insuring a cure?

Dr. Douglas: Our practice is to start the average patient with a dosage of 6 Gm. per day and to continue the medication for not longer than six days. If a therapeutic effect is not obtained within six days, I do not believe it does any good to continue it longer.

I think the dangers associated with the administration, in the way of toxic effects, can be greatly reduced if one does not prolong the administration over a period of longer than six days.

We obtain concentrations in the blood and urine every second day and, in some instances, daily. That is done for purposes of evaluation and may not be necessary in the average patient. However, as I stated previously, if we have a patient who has some impairment of renal function, it becomes of great importance to have that information.

DR. CATTELL: But you do not use it in connection with the adjustment of dosage for the therapeutic action?

Dr. Douglas: No.

Dr. Barr: Helmholtz has emphasized that very small amounts of sulfonamide may be effective in pyelitis. Have you had any experience with small amounts; that is, have doses of less than 1 Gm. a day an effect? I believe that is what they were.

Dr. Douglas: I think it is interesting, in connection with Dr. Barr's remark, that Kenny, who was associated with Colebrook at the time the original work was done at the Queen Charlotte's Hospital, advocated 0.5 Gm. three times a day. That would be 1.5 Gm. per day. That may be effective in a very mild type of urinary tract infection—one that involves little or no pathologic or anatomic change.

Helmholtz is quite correct in the statement that small doses have bactericidal effect. He recently advocated 0.5 Gm. a day, but that is entirely ineffective in a patient who has anything approaching a serious urinary tract infection. In our experience the dosage employed and advocated by Kenny was entirely ineffective.

In answering another question that came up a little earlier, Crabtree, in Boston, has reported spontaneous cures in 65 per cent of women who have had definite febrile phases of urinary tract infection in pregnancy. This fits in exactly with

our own experience of the presulfonamide days. Spontaneous cures often occur, but, as Dr. Mc-Lellan said, if there is a residual urine or an abnormal urinary tract, such cures do not usually take place at the end of four months. In my opinion, Kenny was evaluating a number of spontaneous cures.

In evaluating a combination of sulfathiazole, or sulfadiazine, or any other drug, one has to take into consideration not only the infecting organism, but the degree of the infection. This makes such an evaluation very difficult.

### Summary

DR. Gold: The treatment of genitourinary infections has made considerable advance in recent years. The role of so-called urinary antiseptics has been better defined. Very few drugs have established for themselves an important place in this field. The multitude of dyes which color the urine seem to be of little value. Emphasis is placed almost exclusively on mandelic acid and the sulfonamides. Of the latter, sulfadiazine and sulfathiazole are the most effective members and sulfadiazine appears to produce less distressing side-effects.

Fluids are no longer restricted when the sulfonamides are used in urinary infections because the main action of these drugs is exerted by the concentration in the blood and tissues rather than by that in the urinary passages. Emphasis is now placed on the liberal intake of fluids.

Practically all common varieties of organisms found in urinary tract infections respond to the sulfonamides, except proteus, nonhemolytic streptococcus, and tubercle bacillus.

Urinary tract infections respond to smaller doses of the sulfonamides than many other conditions. For gonorrhea, the practice here is to give from 4 to 6 Gm. daily for five or six days in the average uncomplicated case. The sulfonamides are not very useful in nonspecific urethritis. In mild cases of pyelitis smaller doses suffice.

Calcium mandelate is employed in doses of 12 Gm. daily with limitation of the urine output to about 1,200 cc. In the case of this drug it is imperative to maintain the pH of the urine at 5.5 or less, with a suitable acidifying agent.

There is more information about the natural history of urinary infections. It is pointed out that in uncomplicated cases a large proportion of urinary infections tend to clear up spontaneously. It is further pointed out that in the presence of pathology obstructing the free flow of urine it is virtually impossible to sterilize the urinary tract by means of drugs. The pyuria may subside temporarily but it recurs.

The improvement in the outlook for patients with urinary infection depends in a large meas-

ure on the utilization of the foregoing facts and the improvement of surgical technics for correcting obstruction to flow. It is strongly urged that traumatization of the urinary tract should be avoided. Dr. McLellan states that he now rarely passes sounds or massages prostates in these

The importance of several diagnostic measures, namely, the intravenous pyelogram, the smear, and the culture, have been discussed. The general practitioner may handle urinary tract infections if he is equipped to establish the diagnosis. to administer the sulfonamides, and to make a test of cure. which means a smear and a culture.

## HOLLAND'S HEALTH CRISIS

Long after the Nazis are driven out of Holland. the effects of their occupation will be painfully evident in the lowered physical condition of the populace. The toll exacted by German looting of foodstuffs, by medical neglect, drug shortage, and mass migrations is evidenced in the appalling public health statistics contained in a secret document, which was smuggled out of the country only a few weeks ago.

Their data reveal that the general death rate increased from 8.6 per 1,000 in 1939 to 9.5 per 1,000 in 1942. Infant mortality is even more serious; in 1939 the rate was 34 per 1,000; in 1941, only one year after the German invasion, it had advanced to

43 per 1,000.

Increased prevalence of a nation's tuberculosis is an indication that its people are not getting proper shelter, food, and medical attention. Last year's tuberculosis statistics from Holland reflect just such a situation. Deaths from this disease increased nearly 100 per cent, from 41.2 per 100,000 in 1939 to 80.7 per 100,000 in the spring of 1943. Furthermore, investigations undertaken in 1942 by the Central Bureau of Statistics revealed that 20,000 more cases required sanatorium treatment that year

than in the preceding twelve-month period.

Rickets is another disease which results from malnutrition, and is caused by lack of food containing vitamin D; it has been established that only one Dutch child in three receives this vitamin in normal amounts. In one hospital alone, eleven out of forty child patients had rickets, which was vir-

tually unknown in prewar Holland. Some infectious diseases have shown an alarming increase. Scarlet fever cases jumped from 7,197 in 1941 to 23,000 in 1943. Diphtheria, which had averaged little more than 1,270 cases in 1938 and 1939, increased to 19,400 cases in 1942, with 40,336 cases reported during the first ten months of

1943.

The health crisis becomes even more manifest upon examination of the general food situation. Last November, the Dutch medical delegate to the United Nations Relief and Rehabilitation Adminis-United Nations Reflet and Reministration Administration conference at Atlantic City, stated that the caloric content of Holland's weekly ration for April, 1943, was 32.6 per cent below standard; animal protein, 62.8 per cent; calcium, 57.7 per cent; phosphorus, 57.7 per cent; vitamin A, 85 per cent; vitamin D, 96 per cent; and vitamin C, 37 per cent; vitamin D, 96 per cent; and vitamin C, 37 per cent. This means that the Dutch people are not consuming sufficient milk, bread, butter, meat, cheese, sugar, vegetables, oranges, lemons, and eggs.

This state of affairs has led Dr. Christian Goette, head of the Dutch-Nazi Medical Front, to company the state of the population of the population.

ment: "In regard to the general health of the popu-

lation, it must be said that resistance has been decreased as a result of the long duration of the war and that the number of infectious diseases has increased. This applies particularly to venereal diseases and tuberculosis. I wish it were possible to improve the nutrition of our youth, because undernourishment is spreading."

The health of Holland's people is further endangered by serious shortages of drugs, hospital facilities, and nurses. At the end of 1942, the country's chief health inspector issued a list of sixty-seven medicinal preparations of which there was a scarcity. These included boric acid, cocaine, caffeine, strychnine, castor oil, bismuth prepara-tions, aneurine, camphor, iodine, calomel, chloroform, codeine, pyramidon, gold preparations, morphine, opium, liquid paraffin, and cardiasol.

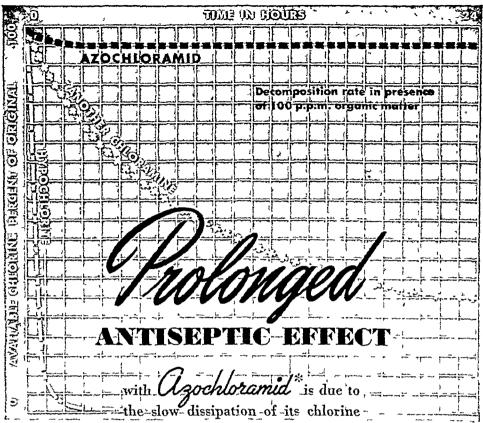
An added blow fell with the "unexpected" dis-

appearance last year of Holland's insulin stocks. Total consumption of the drug had to be halved. By the middle of February the supply to patients whose quota had been 20 units was cut off altogether; serious cases were compelled to manage on small quantities. Until the end of last year insulin could still be bought in the black market at five times the normal price. Many diabetes sufferers were, however, forced to resort to methods used prior to the discovery of insulin—among these is the "hunger cure," which, according to the secret document, is a potent means for fighting complica-

The spread of disease coupled with Nazi requisitioning of Dutch hospitals for German wounded soldiers has created another serious health problem. Last February, Amsterdam Hospital had a waiting list of 2,348 people, many of whom were urgent surgical cases. To make matters worse, the Germans also requisitioned 6,000 hospital beds in northern and northeastern Holland, at a time when mass evacuations from the coastal regions to those areas were under way. Among the evacuees were many aged and infirm who were in desperate need

of hospitalization.

A further complicating factor is the shortage of trained medical personnel-physicians and nurses. Doctors who have not gone underground or been deported are terribly overworked. Owing to the disorganization of the universities, the usual quota of 330 medical graduates was not filled last year, so that an added burden was thrown upon the older practitioners. Consequently, when the Germans made preparations to transfer 1,500 doctors to the Raigh the Dutch physicians threetened to Reich, the Dutch physicians threatened to go on strike, and, for the time being at least, the matter was dropped.—Release from the Netherlands Information Bureau



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### Special Article

### PHYSICIANS' HOME, INC.

"Twenty-Five Years of Service"

N THANKSGIVING DAY, 1918, there was brought to the attention of the late Dr. Wolff Freudenthal the economic disability of an elderly physician who at that time was an inmate of the poorhouse. Dr. Freudenthal brought this sad case record to the attention of a group of physicians at one of the meetings of the Medical Union. It was the sentiment of the members of that organization that it was opportune to create, maintain, and minister to the aged and infirm physicians, their wives or widows, and to make such assistance feasible in other and related ways.

A committee was appointed to survey the situation and to put into practical effect this altruistic idea. Under the chairmanship of Dr. Freudenthal application was made for incorporation under the title of The Physicians' Home and the certificate of incorporation was granted on June 4, 1919. It is interesting, in retrospect, to recall the names of the proponents of incorporation: Drs. Daniel Cook, Warren Coleman, Max Einhorn, Wolff Freudenthal, Silas F. Hallock, Graeme Hammond, Francis Huber, Robert T. Morris, Alexander Trautmen, Henry Mann Silver, George Steel, Ralph Waldo, Albert G. Weed, John E. Welch, Mr. Stuart G. Nelson, and Justice Bartow S. Weeks.

A constitution and bylaws were formulated, adopted, and the following officers were elected: Dr. Robert T. Morris, president; Dr. Ralph Waldo, vice-president; Dr. Silas F. Hallock, secretary; and Dr. Albert G. Weed, treasurer.

In the fall of 1919 an appeal was made to the members of the medical profession, soliciting donations for this purpose. The response upon the part of the profession was spontaneous and gratifying, and funds began to be accumulated.

The first guest of the Physicians' Home was sent to a Home for the Aged at Amityville, New York, and this Home was utilized throughout the succeeding years until 1923. In 1922 the late Dr. Stephen B. Mountain, of Olean, New York, offered to the Physicians' Home a house and farm at Caneadea, New York. It was stipulated in the transfer that the Physicians' Home should make certain installations and carry out certain provisions for the maintenance of the property. Dr. Mountain was elected director and acted in the capacity of resident manager for the Physicians' Home. In 1923

all of the guests of the Physicians' Home were transferred to the Home at Caneadea. This location did not prove satisfactory. The distance from New York City at the eastern end and Niagara Falls at the western end proved a hardship for many of the guests, together with the fact that the Home was two and a half miles from the nearest railroad station. The high cost of maintenance, together with the demise of Dr. Mountain, made it incumbent upon the directors to return the property to the estate of the late Dr. Mountain. The guests, who had varied in number from three to eleven during this period, were later lodged in the Jackson Hotel at Dansville, in Amityville, and a few at Dr. Barnes' Sanitarium in Connecticut. Through the years the number of guests has varied from four to fourteen and there has at all times been a waiting list.

Since the original incorporation the officers have been: presidents—Drs. Robert T. Morris, Warren Coleman, Chas. Gordon Heyd, and George Kosmak; vice-presidents—Drs. Ralph Waldo, William H. Dieffenbach, Warren Coleman, and Silas Hallock; secretaries—Drs. Hallock, Albert G. Weed, Edward C. Cunningham, Arthur L. Sherman, J. J. Eller, W. Bayard Long, William L. Wheeler, Jr., and Beverly Chew Smith; treasurers—Drs. Albert G. Weed, Edward C. Cunningham, Arthur L. Sherman, and B. Wallace Hamilton.

On April 15, 1936, it became necessary to make certain changes in the constitution and bylaws and in the certificate of incorporation for the purpose of creating a more systematized organization and the name was changed to the Physicians' Home, Inc. The finances of the Physicians' Home at this time were somewhat chaotic and consisted of some dubious assets in the form of real estate in Brooklyn. It became necessary for the organization to divest itself of these dubious assets and to confine itself primarily to a fiduciary organization for the purpose of insuring the maintenance of the aged and infirm physicians and their wives or widows.

The funds of the Physicians' Home were originally derived from contributions from five types of membership: annual members, \$10 or more; sustaining members, \$100 to \$1,000; life members \$1,000 to \$5,000; patrons, \$5,000

[Continued on page 1026]

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[Continued from page 1024]

to \$10,000; benefactors, \$10,000 or more; annual and sustaining members were placed upon a yearly basis.

The income received from these types of members was augmented by donations from officers, trustees, interested lay persons, and through bequests by will. The usual form of bequest, which has been used in all of our public announcements, is as follows:

"I give and bequeath to the Physicians' Home, Inc., incorporated, in the State of New York, June 4, 1919, the sum of.......

"Please make checks payable to Physicians' Home, Inc., 52 East 66 Street, New York, New York."

At the present time we have approximately four hundred members in the various categories who have made possible the maintenance of this organization. In addition, we have received substantial aid from well-wishers of the organization in the form of specific bequests, the most recent one from the estate of Annie Van Horne Nelson for \$25,000.

On many occasions various subdivisions of the Woman's Auxiliary of the Medical Society of the State of New York have made noteworthy contributions.

In 1936 it became evident that the Physicians' Home should be an integral part of the organized medical profession and overtures were made to the House of Delegates of the Medical Society of the State of New York whereby the Council of the Medical Society submitted a list of names for directors of the Physicians' Home, since which time the board of directors have been selected from a list of prominent physicians sent from the Medical Society of the State of New York. Recently we have elected Mrs. E. A. Griffin as a director, representing the Woman's Auxiliary of the Medical Society of the State of New York.

It was apparent that a more secure and uniform source of income was necessary, and in 1940 the House of Delegates of the Medical Society of the State of New York permitted the component county societies to add to their statement of annual dues an extra line requesting a voluntary assessment of \$1.00, so the Medical Society would send with its annual statement of dues a memorandum-"Physicians' Home, Inc., voluntary assessment, \$1.00." It was most gratifying and in a measure surprising that 33 per cent of the physicians of the Medical Society of the State of New York responded by returning one dollar to the Physicians' Home, Inc. As evidence of the good will of the various component societies there is subjoined here a statement of

the contributions of the individual county societies for two successive fiscal years, 1942 and 1943.

County Societ	y Voluntary Membership Contro	butions
	1942	1943
Albany	\$ 172.00	. \$ 160.00
Allegany	15.00	. 12.00
Bronx	721.00	
Broome	90.00	. 44.00
Cattaraugus	32.00	. 26.00
Cayuga Chautauqua	34.00	. 16.00
Chemung	83.00	21.00
Chenango	. 19.00	10.00
Clinton	25.00	14.00
Columbia	. 24,00	19.00
Cortland	. 8.00	6.00
Delaware Dutchess	. 16.00	
Erie	382.00	370.00
Essex	24 00	20.00
Franklin	37 00	27.00
Fulton	8.00	21.00
Genesee	. 11.00	20.00
Greene	18.00	$11.00 \\ 25.00$
Jefferson	. 38.00	45.00
Kings		752,00
Lewis	. 9,00,	6.00
Livingston		25.00
Madison	. 17.00	161.81
Monroe Montgomery		20.00
Nassau		
New York	. 1,313.00	1,557.50
Niagara	. 150.00	61.00
Oneida	144 00	86.00 85.00
Onondaga Ontario		32.00
Orange	122.00	
Orleans	7.00	5.00
Oswego		
Otsego	22.00	$\frac{19.00}{4.00}$
Putnam	374.00	501.00
Queens		59.00
Richmond	66.00	3.00
Rockland	10.00	10.00
St. Lawrence	31.00	28.00 33.00
Saratoga	27.00 8.00	122.00
Schenectady Schoharie	8.00	9.00
Schuyler	4,00	7.00 12.00
Seneca	18.00	12.00
Steuben	100.00	114.00
Suffolk Sullivan	129.00 26.00	23.00
Tioga	8.00	7.00
Tompkins	33.00	26.00
Ulster	39.00	$25.00 \\ 23.00$
Warren	23.00 28.00	11.00
Washington Wayne	26.00	
Westchester	350.00	290.00
Wyoming	8.00	15.50 8.00
Yates	8.00	8.00
	\$5,912.00\$	5,120.81
	φυ <sub>1</sub> σιμ. υυ ν	

We take the opportunity at this time, collectively and individually, of thanking the donors for their very great help in our undertaking.

The Physicians' Home, Inc., distributes its funds in a number of ways:

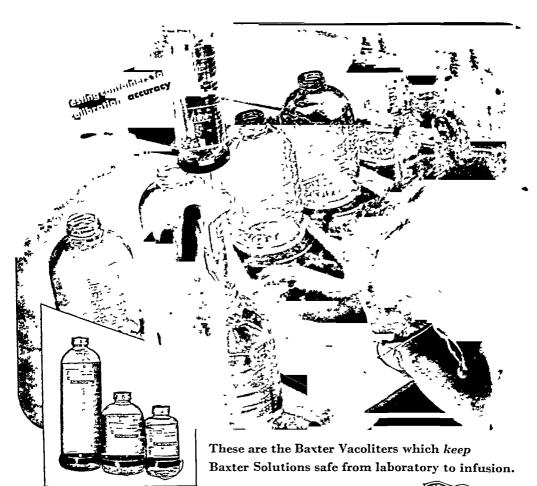
1. Makes an outright contribution of a fixed sum of money. From time to time there arises a situation that demands immediate help—payment of rent, institutional care, or railroad transportation to the family home in a distant state. The Physicians' Home undertakes to provide railroad accommodations and to see that he is comfortably and safely returned to the

care of the family.

2. Makes monthly donations of a fixed sum of [Continued on page 1028]

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\$ 2,855 49

### [Continued from page 1026]

money to assist in the maintenance of a doctor and his family in their own home. For instance, Dr. B. at the western end of the State is retired from practice, owns his own home, but finds that his income is insufficient to meet expenses. The Physicians' Home makes a monthly donation of cash in order to preserve the home, self-respect, and maintenance of the physician and his family.

- Pays for the maintenance and from time to time supplies small amounts of money to retired physicians who desire to live in their own community. The Physicians' Home makes a survey of the situation through the local county medical society and then remits monthly to the treasurer of the local county society sufficient funds to maintain the individual. The money comes from the Physicians' Home but its distribution is in the hands of the local county medical society.
- 4. Makes cash payments for the maintenance of retired, dependent, and infirm doctors in established nursing homes or sanitaria. The doctor, or, as we prefer to call him, "our guest," makes his own selection of the locality in which he wishes to live and arrangements are made for his maintenance, together with a certain amount of spending money, clothing, and, occasionally, a radio set.
- 5. Gives cash benefits when the total income of the children or family of a retired or infirm physician is insufficient to maintain him. After a survey, the situation is canvassed and cash donations on a weekly or monthly basis are provided to meet the requirements for maintenance. Wherever possible our object has been to maintain the doctor in his home, in his community, and among his own friends.

We have utilized the aid of numerous social organizations, social service workers, local county medical societies, and officers of the Woman's Auxiliary of the Medical Society of the State of New York.

The Physicians' Home, Inc., provides for a quiet and dignified burial of deceased doctors when the occasion arises.

The activities of the Physicians' Home, Inc., are available only to bona fide physicians, residents of the State of New York, who have at one time been members of the Medical Society of the State of New York.

The financial condition as of September 30. 1943, is represented by the following balance sheet.

The officers and directors are as follows: president, Dr. Chas. Gordon Heyd; first vice-

### BALANCE SHEET-SEPTEMBER 30, 1943\*

ASSETS	
GENERAL FUND	
Property, 171 Joralemon Street (assessed, 1942, at \$24,500 00), book value Investments in stocks and bonds—market value	\$ 100
Cash in Chase National Bank Cash in Stamford Savings Bank Cash in Bank for Savings	43 280 13 3,425 33 945 93 1,037 08
RESTRICTED FUNDS Cash in Stamford Savings Bank Cash in Excelsior Savings Bank (Weed estate) Cash in Dry Dock Savings Bank (Weed estate)	\$48,689 54 \$ 7,578 35 4,711 63 1,988 86 \$14 238 84
TOTAL ASSETS	\$62,928 38
PUNDS	
GENERAL FUND SURPLUS, September 30, 1943 RESTRICTED FUNDS	\$48,689 54 14,238 84
	\$62,928 38

### STATEMENT OF REVENUE AND EXPENSES October 1, 1942 to September 30, 1943

Cash on hand, October 1, 1942

Dues and contributions Income from investments	\$12,015 16 1,543 60	13 558 76
		\$16 414 25
EXPENDITURFS		
Insurance	\$ 16 74	
General expense	676 49 5 205 65	\$ 5,988 88
Guests	5,295 05	3 3,988 06
EXCESS OF RECEIPTS OVER EXPENDI	TURES	
Cash in general operating fund .	\$ 3,425 37	
Purchase, U.S A. 21/2 per cent Defense Savings Series G".	7,000 00	\$10,425 37
- 0. 0		

\* Audited and found correct by Carl F Miller, accountant

president, Dr. Max Einhorn; second vicepresident, Dr. W. Bayard Long; treasurer, Dr. B. Wallace Hamilton; assistant treasurer, Dr. Alfred M. Hellman; secretary, Dr. Beverly C. assistant secretary, Dr. Charles A. Smith: Perera. Directors: Dr. Clarence G. Bandler, Mr. Max Binswanger, Dr. Kirby Dwight, Dr. Haven Emerson, Mr. David Freudenthal, Dr. Sılas F. Hallock, Dr. A. Bern Hirsh, Dr. Harry H. Hun, Dr. Peter Irving, Dr. David J. Kaliski, Dr. George Kosmak, Dr. Joseph S. Lawrence, L'Esperance, Dr. Harvey B. Dr. Elise S Matthews, Dr. H. P. Mencken, Dr. Seth Milliken, Mrs. Edwin A. Griffin, Dr. Ada Chree Reid, Dr. George T. Strodl, Mr. J. Miller Walker, Dr. Robert Emmet Walsh, Dr. Wm. Crawford White.

-CHAS. GORDON HEYD M.D.

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Acetone Test (Denco) and its companion product Galatest (dry reagent for urine sugar) simplify "routine" urinalysis.

Acetone Test (Denco) detects presence or absence of acetone in urine in one minute. Color reaction is identical to that found in the violet ring tests. Trace of acetone turns the powder light lavender—larger amounts to dark purple.

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Color reaction instantly

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A carrying case containing one vial of Acetone Test (Denco) and one vial of Galatest is now available. Thus is very convenient for the medical hag or for the diabetic patient. The case also contains a medicine dropper and a Galatest color chart. The handy Lit or refills of Acetone Test (Denco) and Galatest are obtainable at all prescription pharmacies and surgical supply houses.

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### Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Milchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.

### Rheumatic Fever-Rheumatic Heart Disease

A LECTURE was given before the Medical Soci-A ety of the County of Cayuga, Inc., on March 25, at 8:30 p.m., at the Auburn City Hospital, Auburn. The subject was "Rheumatic Fever—Rheumatic Heart Disease"; Dr. J. G. Fred Hiss, professor of

clinical medicine at Syracuse University Colle Medicine, was the speaker.

This lecture was provided by the Medical So of the State of New York with the cooperation of New York State Department of Health.

### Hematologic Disorders

MEETING of the Seneca County Medical A Society has been arranged for May 18, 1944, at

It will take place at the Ann Wix Tea Room, 10 Seneca Street, Waterloo.

Dr. Ellery G. Allen, associate professor of cli medicine and assistant professor of clinical pathe at the Syracuse University College of Medicine, deliver a lecture entitled "General Résumé of H tologic Disorders Including the Anemias.1

### NEW TREATMENT FOR CANCER OF THE LARYNX

Brig. Gen. Frank T. Hines, Administrator of Veterans' Affairs, has released the summary of a report made to him by Dr. Max Cutler, of Chicago, chief medical consultant in cancer at the Veterans Administration Facility at Hines, Illinois, a suburb

Dr. Cutler's report discussed results obtained from a new method he has employed in treating early

cases of cancer of the larynx at the veterans' hospital and at the Chicago Tumor Institute. The text of the summary is as follows:

"This is a report on 413 consecutive cases of cancer of the larynx observed by the author because of the larynx ob tween January, 1931, and January, 1943. series includes many veterans who have been sent to Chicago from veterans' hospitals throughout the

"These cases were treated by a new method of x-rays and radium (some patients were treated with x-rays and others with radium—a combination is not used) which has been called 'Concentration Radiotherapy.' The treatments are given twice daily. Some patients are treated for eleven consecutive days and others for eighteen consecutive The treatment is based upon a new principle in which the rays are concentrated upon a very small area, the strongest doses being given to the point of origin of the growth, which is the most resistant part and where recurrence is most common.

"When the cancer has advanced beyond a certain stage, cure by this method is not possible and the larynx has to be removed surgically. In early cases, however, this new method has proved to be highly successful. Thus, in 50 moderately early cases, this method resulted in the initial disappearance of the lesion in 40 or 80 per cent of the cases. Twenty-three out of 28 patients treated more than three years ago, or 82 per cent, are alive and free of disease and apparently cured. Approximately half of these patients would have required complete removal of the larynx in order to effect a cure.

"Unfortunately, the disease was early in only out of 413 cases, or approximately 20 per c Thus a reasonable chance of cure at the very ou existed in only one out of five cases. This is a c lenge to the medical profession and to the lait the matter of early diagnosis and a special portunity for leaders in cancer control.

"Since these growths produce early sympto and since most of them grow slowly and alm never spread in their early stages, the opportu for a planned campaign of education in this field

cancer control is indeed unique.

"The majority of cancers of the larynx begir the true vocal cord. Hoarseness is an early syr tom in 95 per cent of these cases. Examination the larynx with a mirror easily establishes the pi ence of a growth on the vocal cord and biopsy spinen readily confirms the diagnosis. It is only evident, therefore, that the problem of laryng cancer hinges mainly on early diagnosis. No fo of internal cancer offers a more favorable opporti hoarseness being such a common symptom asso ated with the presence of a cold.

"A campaign of education should be undertak to acquaint the laity with these facts and the laman should be taught to insist upon a larynge examination, if hoarseness persists longer than to weeks. Theoretically, a combination of early dis nosis and prompt and appropriate treatment shou render cancer of the larynx largely a disease

historic interest.

"The most significant result of this research is tl eradication by means of a new method of radication by means of a new method of radicaterapy of a group of cancers of the larynx so as vanced as to have required complete removal of the larynx and hitherto generally regarded as resistar to radiation and incurable by radiation."

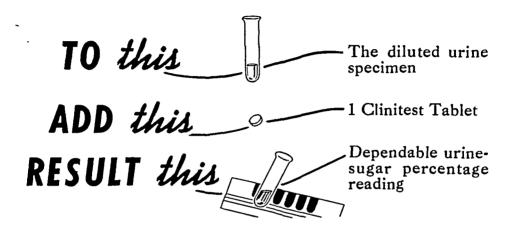
The National Cancer Institute of the U.S. Publi Health Service provided a grant-in-aid to cover par

of the cost of this study.

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### Honor Roll

### Medical Society of the State of New York

### Member Physicians in the Armed Forces

### Supplementary List

The following list is the eighteenth supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, December 15, 1943, January 15, February 1, February 15, and March 1, 1944, issues.—Editor

Ackermann, A. J. 240 Central I York 19, N.Y. Anjanger, L. A. Park South, New 35-30 81 St., Jackson Heights, N.Y.

Block, M. (Lt. Comdr.) Gardiner Gen. Hosp., Chicago, Ill. Blossom, D. B.

1 East End Ave., New York 21,

1 East End Ave., New 10...
N.Y.
Bonime, W. R.
R.F.D. 1, Cove Rd., Oyster Bay,
N.Y.
Braley, A. E. (Lt. Comdr.)
U.S. Naval Hosp., St. Albans, L.I.,
N.Y.
B. Jacob D. J. C. (Capt.)

Bulger, D. J. C. (Capt.) 85 Old Mamaroneck Rd., White Plains, N.Y.
Buyer, E. M. (Lt.)
Naval Training
Bronx 63, N.Y. School (W.R.)

C

Casesa, P. R. (Capt.)

Casesa, F. R. (Capt.)
518 Lafayette Ave., Brooklyn,
N.Y.
Churg, J. (Lt.)
539 W. 112 St., New York 25, N.Y.
Connolly, W. A. (Lt.)
16 N. Goodman St., Rochester 7,
N.Y.

N.Y.
Cosentino, A. J.
182 Wheeler Ave., West New
Brighton, S.I., N.Y.
Cranston, W.J., Jr.
175 Clinton Ave. Kingston, N.Y. West New

Davin, E. J. (Lt. Comdr.) U.S. Naval Disp., 800 N.E. 2 Ave., Miami, Fla.

Epstein, N. I. (Capt.)
34th Gen. Hosp., Pomona, Calif.
Eyre, J. D., Jr.
33 E. 68 St. New York 21, N. Y.

F

Feinberg, M.

154 Stevens Ave., Mt. Vernon, N.Y.

Fertig, D. (Lt.)
U.S. Naval Hosp., St. Albans,
L.I., N.Y.

Friedman, A.I. (Lt.)
Loyell Gen. Hosp., Ft. Devens,

Garfield, F. M. (Lt.)
3610 Park Ave., New York 56,
N.Y.
Glick, B.W.
98th Gen. Hosp., Ft. Jackson, S.C. Gootnick, A. Sta. Hosp., Morrison Field, West Palm Beach, Fla. Grover, D. S. (Lt.) MDRP, Moore Gen. Hosp., Swan-nanoa, N.C.

H

Hale, F. A. (Lt.)
School for Med. Officers, Camp
Barkeley, Tex.
Heffner, R. R. (Maj.)
c/o Mrs. S. L. Heffner, R.F.D. 3,
Box 21, Greensboro, N.C.
Heller, A. G.
172-20 No. Blvd., Flushing N.Y.

Jaffe, H. L Naval Hosp., Bainbridge, Md.

Katz, S. S. 1259 E. 13 St., Brooklyn 30 N.Y. Krakauer, H. (Lt.) Armed Forces Induc. Cen., Ft. Bragg, N.C.

Levine, S.
Cold Spring, N.Y.
Luloff, H. (Capt.)
460 N. Columbus Ave., Mt. Vernon,
N.Y.

M

Mallin, E. J. (Lt.)
8949 212 Pl., Queens Village,
L.I., N.Y.
Maloney, J. F. (Lt.)
8 W. 95 St., New York 25, N.Y.
Mark, M. F. (Lt.)
Carlisle Barracks, Carlisle, Pa.
Markovic, V. (Lt.)
Carlisle Barracks, Carlisle, Pa.
Marmar, W. H.
Tilton Gen. Hosp., MDRP \$108,
Ft. Dix, N.J.
Marmor, J. Queens Village, Marmor, J. St., New York 28, N.Y. 12 E. 86 St., New York 28, N.Y. McGavic, J. S. (Lt.) Valley Forge Gen. Hosp., Phoenixville, Pa.

Messinger, W. J. (Lt.) Goldwater Mem. Hosp., Welfare Island, New York 17, N.Y. Most, H. (Capt.) Kennedy Gen. Hosp. Memphis. Tenn.

0

Oliver, W. L.
Dept. Health I
Pleasant, W.Va,
Overton, J.W. (Lt.) Dist. #3, Point U.S. Marine Hosp. Mobile, Ala.

Powdermaker, F. (Lt. Comdr.) 220 E. 73 St., New York, N.Y.

Rausch, N.G. 1268 Genesee St., Buffalo 11, N.Y. Robbins, N. 502 Park Ave., New York, N.Y.

S

Schneider, R. F. (Lt.)
U.S. Naval Hosp., Charleston, S.C.
Schram, M. (Lt.)
8313 Bay Parkway, Brooklyn, N.Y.
Shaw, M.B. (Capt.)
Carlisle Barracks, Carlisle, Pa.
Shrady, R. H.
580 Park Ave., New York 21, N.Y.
Shuster, M. N. (Capt.)
30 E. 40 St., New York 16, N.Y.
Sommer, R. I.
Pleasant Valley, N.Y.
Spindler, F.

Spindler, F.

101 E. 116 St., New York 29, N.Y.
Sunners, E. G. (Lt. Comdr.)
U.S. Coast Guard Insur. & Exchange Bldg., Long Beach, Calif.

Vadasz, E. (Capt.) Fitzsimmons Gen. Hosp., Denver 8, Colo.

w

Wagner, E. J.
333 W. 57 St., New York 19, N.Y.
Waxelbaum, J.
894 Madison Ave., New York 21,
N.Y.
Werner, H. L.
575 Park Ave., New York 21, N.Y.
White, W. F.
1902 South Park Ave., Buffalo 20,
N.Y.



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**Indications:** Neuroses, migraine, functional digestive and circulatory disturbances, vomiting of pregnancy, menopausal disturbances, hypertension, etc.

Formula: Each tablet contains ¼ grain phenobarbital and the three chief alkaloids, equivalent approximately to 8 minims of tincture of belladonna.

Belbarb No. 2 has the same alkaloidal content but ½ grain phenobarbital per tablet.

We shall be glad to meet you at our booth 113

### Medical News

### Federal Aid for Communities Needing Medical and Dental Personnel

UNDER the terms of a new Federal statute, Public Law No. 216, the sum of \$200,000 is appropriated to the United States Public Health Service for the fiscal year ending June 30, 1944, for the relocation of private practicing physicians and dentists to areas in which shortages of such personnel now exist.

The act provides that a municipality, county, or other local subdivision of government may submit to the Surgeon General of the United States Public Health Service an application, duly approved by the state health department having jurisdiction over the applicant subdivision, for the relocation of a private practicing physician or dentist. The Surgeon General, on receipt of such an application, is authorized "to enter into agreements with private practicing physicians and dentists under which, in consideration of the payment to them of a relocation allowance of not to exceed \$250 per month for three months and the actual cost of travel and transportation of the physician or dentist and his family and household effects to the new location, such physician or dentist will agree to move to and engage in the practice of his profession for a period of not less than one\_year."

No such agreement shall be made, however, unless the contracting physician or dentist shall be admitted to practice by the state authority having

jurisdiction over the new location.

It is provided further that each applicant subdivision must contribute 25 per cent to the total cost of the relocation allowance, travel, and transportation costs of each physician or dentist, and his

family, obtained by such applicant.

Areas in New York State now in immediate need of additional medical and dental services may apply for the relocation of physicians and dentists under the provisions of this statute. According to the results of a survey made by the New York State Department of Health of the availability of physi-

cians in fifty-four of the fifty-seven upstate counties,\* eight counties (Cattaraugus, Chautauqua, Chenango, Columbia, Orleans, St. Lawrence, Schuyler, and Seneca) on the basis of estimated population had less than one physician per 1,500 persons as of February 1, 1944. At the time of the last survey, April 1, 1943, five additional counties (Allegany, Clinton, Lewis, Montgomery, and Putnam) had less than one physician per 1,500 population. Seneca County continues to have the lowest physician-population ratio, 1:2,049. However, Seneca, like other counties, is served by physicians residing in adjacent sections. The need for physician's services, therefore, cannot be determined on the above basis alone.

More complete analysis indicates that there are twenty-four areas in seventeen counties in each of which there is need for at least one additional physician. In two of these, negotiations are under way which should relieve the physician shortage in the near future. There is need for immediate relocation of physicians to the remaining twenty-two

areas.

Forms for use by subdivisions in making application for the relocation of physicians and dentists have been sent through the district health offices of the New York State Department of Health to the proper authorities of communities deemed to be suffering from a lack of medical services.-Health News, March 27, 1944

### Newburgh-Kingston Caries-Fluorine Demonstration

A LONG-RANGE demonstration which may prove conclusively the practicability of mass protection against dental caries through the simple expedient of adding fluorine to public drinking water supplies will be conducted by the New York State Department of Health with the cooperation of two upstate communities. If successful, this procedure may spell an achievement in dentistry and public health as epochal as the control of many infectious diseases through immunization.

The far-flung implications of this demonstration stagger the imagination when it is considered that today tooth decay is an almost universal disease affecting practically the entire population regardless of age, sex, race, or economic status. Records of the physical examinations of school children reveal that dental caries is the most prevalent defect found. Because of its widespread prevalence and its possible effects on the general well-being of the individual health officials within recent years have treated this disease as a public health problem....

Within recent years, the effects of fluorine on tooth structure have been studied by many investigators. Their observations revealed that in communities where fluorine was present in the water

supply in concentrations of one part per million and over, there was less dental decay than in comparable communities using fluorine-free water. Where the fluorine was in excess of one part per million, there was mottling of the enamel, manifested as white to brown spots, and in severe cases the enamel was However, where there was one part per pitted. million or less, there was no mottling of the enamel. These studies followed three definite lines: (1) the chemical analysis of waters and tooth structure and the chemistry of fluorine; (2) the effects of fluorine in animal experimentation; (3) the effects of fluorine on the teeth of human beings.

The results led to the caries-fluorine hypothesis, which points to an inverse ratio of the number of dental cavities to the fluorine present in the drinking water when the fluorides are ingested during the

years of tooth development ...

The caries attack rates for children born and reared in areas where the fluorine content of the drinking water was about 1.0 p.p.m. and those in comparable areas with 0 0 fluorine were as follows: (1) about six times as many caries-free children in the former areas; (2) about a 60 per cent lower dental

[Continued on page 1036]

<sup>\*</sup> Nassau, Suffolk, and Westchester counties were omitted because of the difficulty previously encountered in determining the number of physicians who actually practice in these counties, and because an earlier survey indicated that a very large number of physicians would have to be withdrawn before an acute shortage of physicians was likely to develop. There is no indication that there has been any such large withdrawal in these counties.



Little Chief Redskin gets Big Itch!

FORAYS into the forests and fields by our own little followers of the Redskin bring them many unhappy meetings with the enemies, RHUS toxicodendron (poison ivy) and RHUS diversiloba (poison oak).

But it isn't necessary for "another redskin to bite the dust." Prophylactic inoculations can prevent most of these annoying attacks that disable so many people during the spring, summer and early fall. And 'tvyot' poison ivy extract not only prevents RHUS dermatitis but produces definite benefits in relieving symptoms in those who have already contracted it. The beneficial results of 'tvyot' extract—both as prophylaxis and treatment—have been proved in clinical tests.<sup>1</sup>

'IVYOL' extract contains purified principles of poison ivy (1:1000) in sterile olive oil. Administration by deep intramuscular injection is relatively painless because of the bland vehicle.

The Mulford Biological Laboratories of Sharp & Dohme developed 'IVYOL' extract, and it is accepted by the Council on Pharmacy and Chemistry of the American Medical Association. It is supplied in packages containing one or four 0.5-cc. vials, each vial representing a single dose.

Sharp & Dohme, Philadelphia 1, Pa.

PROPHYLAXIS: Contents of one vial, intramuscularly, each week for four weeks.
TREATMENT: Contents of one vial, intramuscularly, every 24 hours until symptoms are releved.

1. Kerr, W. H. et al.: Nebr. State Med. J., 26:129, 1941.



POISON IVY EXTRACT (MULFORD)

For the Prophylaxis and Treatment of Poison Iry and Poison Oak Dermatitis.

[Continued from page 1034]

caries experience rate; (3) about a 75 per cent decrease in first permanent molar loss.

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tudes. "These changes mean that the Post-Graduate Medical School will have a larger and more important place in the educational system of the future."

### Annual Tuberculosis Conference May 24-25

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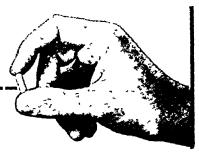
Plans include morning, luncheon, and afternoon sessions, with ample opportunities for participation

in informal round-table meetings by the officer and board-member delegates of sixty-two county and city Tuberculosis and Public Health Associations in the State, outside of New York City.

Also invited to take part in the conference will be representatives of State and local health, welfare, and education departments; sanatorium super-intendents; allied nonofficial health and welfare agencies, and any other interested groups or persons. —S.C.A.A. News, March, 1944

Aluminum Hydroxide Therapy--





Whether ambulatory or not, your gastric ulcer patients will appreciate the ease with which ALUMINOID capsules are taken. Small enough to be swallowed without discomfort, easily carried in vest pocket or purse and, of course, tasteless. It is significant that ALUMINOID offers a true, colloidal aluminum hydroxide powder, which has been shown equally as effective in the control of gastric hyperacidity as this therapy in liquid form. Aluminoid capsules are available through all recognized pharmacies. Information and samples on request.

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# MILE APEUTIC TEAMWORK

### Vitamin "B" Complex fortified with Vitamin "C"

Research has shown that vitamins B and C appear to work as a team in effecting beneficial changes in cellular physiology. This was clinically manifested by improvement in pathology of the upper respiratory mucosa and the retina when the two vitamins were given together.

When only one was used, this favorable reaction did not occur.

Vitamin "B" Soluble (Walker) is derived from brewers yeast—its potency increased so that three capsules meet the minimum daily needs for vitamin B factors recommended by the U.S. Government.

Professional samples sent on request to Myron L. Walker Co. Inc., Mount Vernon, New York.

VITAMIN "B" SOLUBLE



[Continued from page 1034]

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[Continued on page 1038]



ARGYROL THE PHYSIOLOGIC ANTISEPTIC

There are important properties in addition to bacteriostasis which make ARGYROL the "Physiologic Antiseptic"—one which works in harmony with the normal defense functions of tissue, nerves, cilia, and circulatory system. Of first importance is the fact that ARGYROL is both antiseptic and decongestive. But there is an EXTRA FACTOR in mucous membrane antisepsis, in decongestion with ARGYROL. This is physiologic stimulation of tissue defense function. It is a combination of physico-chemical and bacteriostatic properties which go far beyond the usual concept of what an antiseptic should do. Write for further details, posological table and booklet of clinical application.

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## ARGYROL FOR PHYSIOLOGIC STIMULATION OF TISSUE DEFENSE FUNCTION

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[Continued from page 1036]

### County News

### Albany County

In recognition of their services to the war effort in examining selectees at the Induction Center for military service, thirty-six specialists of the medical profession in the Capital District have received medal awards.

Representing the War Department in its recognition of what were described as "outstanding services" was Maj. Joseph J. LaManna of the cavalry, commanding officer of the Induction Center, who presented the awards at the ceremonies in Albany. Assisting were Capt. W. F. Modrys, Marine Corps, chief medical officer; Capt. H. M. Dey, Field Artillery, aide to Major LaManna, and

Lt. (jg) Leonard Hoag, Navy.

Those who received the awards are Drs. Julius Anose who received the awards are Life. Junius Barasch, James W. Bucci, John A. Cetner, Isadore Drapkin, Henry B. Dubins, David H. Faulknor, E. Martin Freund, Joseph A. C. Gabriels, Simon J. Gormley, Arthur F. Holding, Joseph L. Holohan, Julius Katz, Roy C. Kemp, Joseph E. Kilman, Albert LaFleur, Louis F. LeSoine, C. Vaughan Lewis, Edward X. Mikol, Harry Miller, Joseph W. Macre Clarance F. Mullens, John P. O'Keeffe. Moore, Clarence E. Mullens, John P. O'Keesse, Frederick L. Patry, Charles A. Perry, Arthur E. Pitts, Thomas M. Proctor, Alfred E. Rizzolo, William C. Rausch, Rudolph Ruedemann, Jr., William Siegal, John F. Southwell, Francis A. Stephens, Arthur M. Sullivan, Alvah H. Traver, Archibald C. Worth, Jr., and Bascom B! Young.\*

Albany's war front against cancer was opened by the Albany division of the Women's Field Army with a special meeting called by Mrs. Thomas B. Wheeler, new city commander, to formulate plans of the group for an extensive educational campaign against cancer which was launched in April.

Asserting that the best weapon for cancer control was public knowledge of the disease's signs and symptoms, Dr. Louis C. Kress, director of the Division of Cancer Control, State Department of Health, urged that the prime aim of the Women's Field

Army be fully recognized.

"Cancer is a preventable disease," he said. "The public must be posted on what cancer's signs and symptoms are, and to bring that knowledge within reach of everyone, the Women's Field Army has been created."

Also pledging cooperation in the campaign were Dr. F. E. Coughlin, district health officer, Dr. Arthur F. Holding, and Mrs. H. P. Van Wagenen,

State commander.

Planned to function throughout the year on a permanent basis, the city division of the Women's Field Army will consist of a city-wide advisory committee of citizens interested in furthering cancer education, and an executive committee. Announced as members of the latter are Dr. Holding, Dr. John B. Horner, president of the Albany County Medical Society, Dr. Coughlin, Dr. Arthur W. Wright, Dr. I. J. Murnane, chairman of the cancer committee of St. Peter's Hospital, Miss Hazel Reed, director of the Visiting Nurses' Association, Mrs. Augustus Best, of the Albany Training School for Practical Nurses, Mrs. Alfred Madden, Albany County com-mander, and Mrs. James S. Lyons, president of the woman's auxiliary of the medical society.

Local officers of the Women's Field Army are Mrs. Wheeler, commander; Mrs. J. Rooney, Mrs.

\* Asterisk indicates that item is from a local newspaper.

Edward Mertz, and Mrs. Albert Yunich, deputies; Mrs. James B. Lyon, secretary; and Mrs. William McKinney, treasurer. Assistant treasurer for the enlistment drive is Donald Sanders of the National

Commercial Bank and Trust Company.

Eleven Albany physicians and surgeons and four from Schenectady recently took a week's intensive training in preparing civilian doctors for specialized service in civilian or military emergencies. They are members of Affiliated Hospital Unit No. 1 of Albany Medical College, and received the training at Halloran General Hospital, Staten Island.

The group included Dr. J. Lewi Donhauser, unit head, surgeon-in-chief, Albany Hospital; Dr. A. M. Dickinson, chief surgeon, Memorial Hospital; and Drs. J. E. Heslin, chief urologist, Albany Hospital; E. P. McDonald, attending gynecologist, Albany and St. Peter's Hospitals; J. F. Southwell, assistant attending urologist, Memorial Hospital; Fred C. Conway and Raymond F. Kircher, St. Peter's Hospital; Charles A. Perry, chief physician, Memorial Hospital, and F. W. Dodge, attending physician; Arthur W. Wright, chief pathologist, and William P. Howard, chief radiologist, Albany Hospital.\*

### Broome County

The April meeting of the county society was held in the Auditorium of Binghamton City Hospital on April 11 at 8:30 P.M. Dr. Milton G. Potter, of Buffalo, spoke on "Version and Breech Extraction."

At the regular meeting, held February 8, it was voted that each active member of the society not in military service be assessed \$5.00 in order to build up a fund for public relations purposes, particularly involving legislative matters. To date, few assessments have been received. Members are urged to cooperate in this matter.

#### Erie County

Dr. Richard H. Sherwood, of Niagara Falls, addressed the Medical Society of the County of Erie at a stated meeting on March 28 at 9:00 r.m. in the Georgian Room of the Hotel Statler, Buffalo, on "What Niagara County Is Doing to Defeat the Wagner-Murray-Dingell Bill."\*

### Kings County

Dr. Harry J. Greene, associate obstetrician and gynecologist at Kings County Hospital, addressed the members of the Rockaway Medical Society at their April meeting on the subject, "Penicillin in the Treatment of Infections" Treatment of Infections.

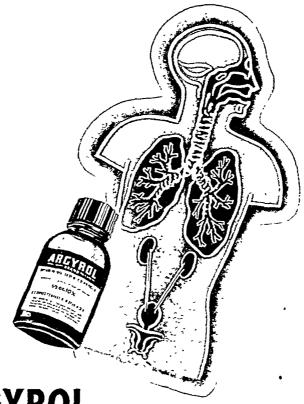
A regular business meeting of the society preceded the talk by Dr. Greene. Dr. Hyman Rivkin, the

president, presided.\*

### Jefferson County

"The British National Health Insurance Scheme" was discussed by Alfred Dinsdale, news analyst, at the regular monthly meeting of the county society on April 13.

[Continued on page 1040]



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[Continued from page 1038]

The place of meeting was the Black River Valley Club, where a dinner was served at 6:30 P.M. preceding the meeting.

On April 2 Dr. Frederic R. Calkins, of Watertown, celebrated the fiftieth anniversary of his graduation from old Bellevue Hospital Medical College of New York, which is now a part of New York University.

### Monroe County

On March 2 the Rochester Democrat and Chronicle

carried the following item:

"In the spotless and well-equipped medical department in the Eastman Kodak Company's plant in Rochester there's a new doctor who not many months ago was held with his family of six in a Japanese prison camp.

He is Dr. Frederick Scovel, formerly of Cortland, who was a mission doctor in China for thirteen years. He returned to the United States on the exchange ship "Gripsholm" last December with his wife and five children. A sixth child was born just

after the ship docked in New York.

"The Scovels were interned in Weihsien, Shantung Province, North China. Dr. Scovel was one of eighteen doctors among the eighteen hundred prisoners."\*

### New York County

An announcement has been made by Dr. Edward M. Bernecker, Commissioner of Hospitals of the City of New York, and Dr. J. A. W. Hetrick, Dean of the New York Medical College, that a teaching affiliation has been established between the City Hospital of the Department of Hospitals, New York City, and the New York Medical College.

According to this arrangement, extensive clinical facilities in medicine, surgery, obstetrics, gyne-cology, neurology, and pathology will now be available to students of the Medical College. hospital is located on Welfare Island, adjacent to the Metropolitan Hospital, which is also used for teach-

ing purposes by the College.

City Hospital was founded in 1832 and has a long tradition as a teaching hospital. From a small institution it has grown into a well-equipped modern hospital with 880 beds, averaging 10,000 admissions per year, with an average stay of twenty-three days. It is an acute-chronic hospital, with approximately 30 per cent of the patients suffering from chronic diseases. City Hospital also maintains jointly with the Metropolitan Hospital an extensive Outpatient Department at 80th Street and East End Avenue.

Dr. Thomas I. Price, medical superintendent of City Hospital, and Dr. W. Laurence Whittemore, chairman of the Committee of the Medical Board,

assisted with the plans for the affiliation.

The following appointments to the clinical faculty

have been made:

Clinical professor of surgery: Frederick W. Bancroft, F. Ward Renfrew, Lyman W. Crossman, Isidore Kross, Kenneth Johnson, James V. Ricci, and Margaret Stanley Brown.

Associate clinical' professor of surgery: John E. Sutton, Alexander Zimany, Henry I. Goodman, Louis Perrotta, Mortimer W. Rodgers, Ernest P. DeSanto, Charles C. Abbate, William S. MacComb, Sigmund Siegel, Max B. Nathanson, Joseph M. Armengol, Chester D. Carroll, Herbath P. H. Walter, Victor Foundation, Occasion A. Desagnation bert E. Hollander, Justus Kaufman, Orestes A. Russo, M. Russell Nelson, Gerard H. Mueller, James P. Boylan, and Herbert J. Simon; clinical assistant in surgery: Harry Zimmerman.

Clinical professor of pathology: James R. Lisa.

Clinical professor of medicine: J. Homer Cudmore, David S. Likely, W. Laurence Whittemore, Charles J. Dillon,

Maximilian A. Ramirez, and John Carroll.

Associate clinical professor of medicine: William Wheeler, Jr., Frank S. Pierson, Seymour Fiske, Benjamin Jablons, Samuel Gellert, Albert Cornell, Ernest Hammerschlag, Walter Bensel, Arthur M. Cahn, Samuel Blinder, Rafael Watter Bensel, Arthur M. Caam, Samuel Binder, Raisel Angel Marin, Richard Gordon, Louis Hirschhorn, Harry H. Shilkret, Harry Gross, William M. Patterson, Martin Kutscher, Harry Katz, Irving Newman, Anibal Zelaya, Frederick M. Allen, James S. Edlin, Carl Reich, Harry Yarnis, Max M. Sterman, Sidney Harris, Robert M. Appel, Sydney Bassin, Cyril Solomon, and Stephen London.
Associate in medicine: Edward A. Stern.

Clinical instructor in medicine: Guenther Elias and Julia Super.

Clinical professor of neurology: L. Vosburgh Lyons and John H. Nilan,

Columbia University, College of Physicians and Surgeons, is offering a full-time symposium on general surgery, May 15-19, 1944. The course is designed to offer a review of recent developments in general surgery, reflecting the experience of representative metropolitan clinics. Meetings will be held at the five participating hospitals under direction of members of the faculty of medicine of Columbia University. The various subjects will be presented by lectures, demonstrations, operative and nonoperative clinics. Although clinical and pathologic aspects will be emphasized, basic anatomic and physiologic principles underlying the subjects under consideration will be discussed.

All communications regarding the course, as well as applications for admission, should be addressed to: The Dean of the School of Medicine, 630 West 168th

Street, New York 32, N.Y.

Dr. Edward S. Godfrey, Jr., New York State Commissioner of Health, has been elected president of the State Provincial Health Authorities of North America.

The first civilian Chinese to be naturalized here since the Chinese exclusion acts were repealed last December took the oath to become an American citizen from Federal Judge John C. Knox. He is Dr. Rupert C. Sancho, 45 years old. His Spanish name is a result of his Roman Catholic religion and his birth in Trinidad.

Dr. Sancho's speedy naturalization was possible because he had made formal declaration in 1930 of his intention to obtain United States citizenship. The physician was permitted at that time to file his declaration in order to comply with New York State laws governing the practice of medicine. He had taken his medical degree at Howard University the year before, and after completing his internship began to practice medicine here in 1930.\*

Oneida County

Dr. Franklin B. Peck, of Indianapolis, Indiana, was the speaker at the April meeting of the county society, which was held in the Hotel Utica on April 11. The title of his address was "The Clinical and Experimental Aspects of Penicillin." Discussion was opened by Capt. Carlos Julia of Rhoads General Hospital, Utica.

Dinner was served at 7:00 P.M. and the meeting

was called to order at 8:00 p.m.

# 28 WORDS tell the story...

Clinical tests\* showed that when smokers changed to PHILIP MORRIS Cigarettes, every case of irritation of the nose and throat due to smoking cleared completely or definitely improved.

<sup>\*</sup>Laryngoscope, Feb. 1935, Vol. XLV, No. 2-149-154.

[Continued from page 1040]

"Office Gynecology, Diagnosis and Treatment," was the subject of a talk by Dr. Arthur J. Wallingford given at the meeting of the Utica Academy of Medicine on April 20 at the Hotel Utica. Wallingford is professor of gynecology at Albany Medical School. Discussion of his paper was opened by Dr. William Hale, Jr., of Utica. Dinner was served preceding the meeting.

Capt. Werner Hamburger, of Utica, formerly psychiatrist at Rhoads General Hospital, is now on the staff of an Army general hospital in England.

Educated at the University of Berlin and its medical college, Dr. Hamburger came to Utica in 1935 and was senior physician at the Utica State Hospital before entering the Army Medical Corps a year ago. He was assigned to Rhoads Hospital last summer and remained there until his transfer to a hospital unit at Fort Dix in December.

Dr. C. E. Troutman, assistant officer in the Utica district office, State Department of Health, has been transferred to the New York office.

### Ontario County

Frank L. Winsor

The second 1944 quarterly meeting of the county society was held at the Clifton Springs Sanitarium and Clinic on April 11. The program consisted of a

business meeting, a dinner, and a scientific session.

Dr. P. V. Newland, of Clifton Springs, gave a paper on "Arthritis," and members of the staff of the Sanitarium and Clinic presented a number of clinical

### Orange County

Dr. Warren B. Andrews, a practicing physician in Newburgh for forty years, has retired from practice. Dr. and Mrs. Andrews will move to Bethlehem, Connecticut, where they will make their home.

Dr. Andrews began his practice in Newburgh in September, 1904, after serving one year as assistant physician on the staff of the Hudson River State Hospital at Poughkeepsie. From 1906 until 1934 he served continuously, except for a few months' sick leave, as physician to the Newburgh City and Town Home.

Dr. Andrews is a past president of the Newburgh Bay Medical Society, a past president of the Orange County Medical Society, and a member of the New

York State Medical Society.\*

Newburgh Bay Medical Society went on record at a meeting on March 21 in hearty approval of having Newburgh be the pioneer center for demonstration of treating the city's water supply with fluorine as a protection against decay of teeth. A representative of the State Department of Health explained the project to members, who voted commendation to the City Council for its favorable reception of the proposal.\*

### Westchester County

Members of the Westchester County Medical Society were invited to be guests at a regular meeting of the Putnam County Medical Society on Wednesday evening, April 5, at the Gypsy Trail Country Club, Carmel, New York. A program on "Progress in Gastrointestinal Diseases" was presented by Dr. Henry Lax, internist, and Dr. Sandor Rado, psychiatrist. Supper was served at 7:00 P.M. and the scientific program began at 8:00 P.M.

### Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Herbert C. Anderson	68	L.I.C. Hosp.	March 31	Brooklyn
Raymond L. Baker	67	N.Y. Univ.	March 17	Utica
Lenore N. Carlisle	70	W.M.C. Pa.	March 19	Hampton Bays
Carl W. Cohoon	45	Queens, Canada	April 10	Bay Shore
John W. Dean	75	Albany	December 18	Glens Falls
Harry R. S. Emes	68	Buffalo	March 21	Niagara Falls
Albert F. Erb	95	Buffalo	February 28	Clarence
John H. Fallon	67	Albany	February 28	Schenectady
John S. Fiorella	34	Creighton	March 20	Buffalo
Robert Furman	70	Albany	March 13	Manhattan
William H. Gaul	59	P. & S., N.Y.	April 8	Yonkers
Raymond W. Hawkins	49	Johns Ĥopkins	March 30	Rochester
Jacob E. Helwig	82	Buffalo	April 7	North Tonawanda
Louis Karmiohl	63	Univ. & Bell.	February 22	Manhattan Manhattan
Carl Koller	86	${f Vienna}$	March 21	Larchmont
William G. LeFurgy	44	Boston	March 29	Brooklyn
Meyer Lippman	61	Univ. & Bell.	March 9	Brooklyn
Arthur H. Longstreet	71	Vermont	April 4	Richmond Hill
William I. Louis	<b>7</b> 6	N.Y. Eclectic	March 29 March 10	Port Jervis
Henry McCrea	67	Queens, Canada	March 12	Richmond Hıll
Johann W. Mock	68	Kiel	March 20	Poughkeepsie
Albert R. Moffit	67	P. & S., N.Y.	February 27	Rome
Maxwell C. Montgomery	63	Syracuse	September 29	Manhattan
Peter F. Welles	44	Leipzig	March 15	Laurens
Fronk I. Winsor	74	Bellevue		

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continuation of ciliary motion for a long period of time.

Sulmefrin may be administered by spray, drops or tamponage. It is supplied in 1-oz. dropper packages and 1-pint bottles. The solution is pink-tinted.

Sulmefrin-for intranasal treatment of

SINUSITIS
RHINITIS
PHARYNGITIS
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Sulmefrin contains desoxyephedronium sulfathiazole—a combination having the antibacterial properties of sulfathiazole with the proved vasoconstrictive action of ephedrine-like compounds.

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### Hospital News

### May 12 Is National Hospital Day

'ONVINCED that the American public is eager to learn more about the functions and prob-lems of community hospitals, Frank J. Walter, president of the American Hospital Association, has announced that the theme of this year's National Hospital Day, May 12, will be "Hospitals

in the Third War Year."
"It is important that the people of this country understand the current problems of their hospitals and that they are made more aware of the services the hospitals perform for them," said Mr. Walter. "The extreme shortage of trained hospital personnel as a handicap to normal performance on behalf of its home community is being overcome by the majority of hospitals. Intensive volunteer and fulltime employee recruiting will be of assistance in calling to the attention of the average citizen the ideals of the voluntary hospital and, if volunteer appeals are heeded by a sufficient number of people, one of the greatest war difficulties will be partially solved," declared Mr. Walter.

In keeping with the spirit of the times, the Association plans a National Hospital Day emphasis on the continuance of cooperative relations with

government agencies, study of postwar hospitalization needs, a continued interest in veterans' physical rehabilitation programs, and expanded facilities for an interchange of technical advances in hospital science. "The necessity of careful planning by hospitals and government prior to any radical changes in the hospital system in this country is indicated by the successful development of our American hospitals through research and mutual cooperation," stated Mr. Walter.

Many hospital employees and hospital auxiliary volunteer groups contemplate soliciting pledges from community members to purchase war bonds which will supply medical equipment to the armed forces. "This additional effort is an indication of hospital willingness to assume an even larger share of the nation's responsibility during the war," stated George Bugbee, executive secretary of the American

Hospital Association.

Mr. Bugbee estimated that a considerable amount of support of this year's National Hospital Day celebration will be forthcoming from governmental agencies and civic-minded industrial and business leaders.

### Government Hospitals Need Occupational Therapists

WHILE on battle fronts scattered throughout the world our armed forces are concentrating on winning the war, in Army and veterans' hospitals here in the United States trained occupational therapists are among those bending their efforts toward winning the peace.

These therapists are erasing the ravages of war by the systematic rehabilitation of injured bodies and minds. Some of the war-wounded are reconditioned for further service in the Army; others are fitted for useful civilian work in a normal en-

As increasing numbers of injured soldiers return to the hospitals, more and more occupational therapists are needed to aid in their adjustment to normal

In greatest demand are experienced graduates of accredited occupational therapy schools. perience should be in hospitals acceptable to the American Medical Association. For some posi-

tions, however, college training in psychology and in arts and crafts or trades and industries, or experience as a junior aide in veterans' hospitals may be substituted for training in occupational therapy schools. Other positions will be filled by inexperienced graduates of occupational therapy schools.

The salary range of these positions is \$1,970 to \$2,433 a year, including overtime pay. Those appointed at \$1,970 will be trainees for a period of eighteen months; those appointed at \$2,190 and \$2,433 will administer occupational therapy under medical and general supervision, in Army and veterans' hospitals.

There are no age limits and no written tests, but applicants must be physically capable of performing the duties involved. Persons now using their highest skills in war work should not apply. Federal appointments are made in accordance with War Manpower Commission policies and employment stabilization programs.

### Nurses' Organizations to Meet in June

THIS biennial convention year the American Nurses' Association, the National League of Nursing Education, and the National Organization for Public Health Nursing are holding meetings jointly in Buffalo, with headquarters hotels designated as follows: ANA—Hotel Statler; NLNE—Hotel Lafayette; NOPHN—Hotel Buffalo. Dates set for the meetings are June 5, 6, 7, and 8,

Hotel reservations may be made through Mr. A. J. Morgan, Manager, Buffalo Convention Bureau, 602 Genesee Building, Buffalo, New York

No program sessions will be held during the four-day meetings, and no arrangements will be made for special breakfasts, luncheons, or dinners.

Delegates who attend the meetings are urged: (1) to make early reservations for sleeping rooms. No person should leave home for Buffalo who does not have written confirmation of a hotel reserva-

tion; (2) to purchase and have in their possession, before leaving home, return railroad tickets and pullman or other reservations.

The tentative schedule for the meetings provides for business meetings of the ANA and NOPHN, including business sessions of sections, and for special

conferences of the NLNE.

Two joint evening sessions are planned at which will be presented the programs of the National Nursing Council for War Service, the Nurse Education Division of the U.S. Public Health Service, the Procurement and Assignment Service for Nurses, and the American Red Cross Nursing Service

Chairman of General Arrangements for the meetings is Mrs. Tessa Klein, 181 Franklin Street, Buffalo, New York.

[Continued on page 1046]



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THE WM. S. MERRELL COMPANY CINCINNATI, U. S. A. [Continued from page 1044]

### Hospital Census Shows Enormous Increase

A N ALL-TIME record of 15,374,698 patients, exclusive of newborn babies and outpatients, were admitted to hospitals in the United States during 1943, the American Medical Association's annual census of hospitals shows.

This figure is an increase of 2,829,088, or 22.5 per

cent, over the previous year.

Births in hospitals during 1943 totaled 1,924,591. The number of hospitals increased by 310, while the number of hospital beds increased by 265,427 plus 5,686 more bassinets.

"This recent growth is the equivalent," states

the report in the A.M.A. Journal (March 25), "of a new 727-bed hospital for each day of the year.

The enormous expansion is due to wartime

needs.

The largest gain in number of hospitals occurred in the federal group, which would include Army, Navy, and Marine, or Public Health Service hospitals, and Veterans Administration Facilities. This group now numbers 827, as compared with 474 in 1942, and their bed capacity is given at 476,673, an increase of 255,735 since 1942.—Science News Letter, April 1, 1944

### Latin American Interns and Residents in U.S. Hospitals Not Counted in Quota

ATA RECENT meeting of the Directing Board of the Procurement and Assignment Service it was decided that graduates of Latin American medical schools currently serving as interns or residents would not be counted in hospital quotas.

It was felt that most Latin American doctors who accepted internships or residencies were in fact postgraduate fellows attached to U.S. hospitals. In some instances language difficulties precluded their rendering as much medical care to hospital patients as native born and U.S. trained house

officers. If Latin American physicians were to be counted in hospital quotas, there would be some hesitancy in accepting them in lieu of native-born United States medical graduates.

Since it is highly desirable to have Latin American physicians seek postgraduate medical training in the United States, dropping them from hospital quotas would encourage hospital superintendents to accept them as interns and residents and thus facilitate their securing additional training in this country.—J.A.M.A., March 11, 1944

### At the Helm

Three new members have been elected to the board of managers of the Presbyterian Hospital in New York City. They are Mrs. Frederic F. de Rham, of Tuxedo Park, and Frederick A. O. Schwarz and William J. Wardall, of New York City.\*

Dr. F. M. Miller, Jr., was re-elected president of the Medical and Surgical Care, Inc., a cooperative of the Hospital Plan, Inc., at the annual meeting of

the board of directors.

Re-elected to the board of directors of the Medical and Surgical Care, Inc., were: Walter F. Roberts, Lt. Cmdr. John F. Kelley, Dr. J. B. Lawler, Dr. Miller, Dr. Hyzer W. Jones, Albert C. Foster, Le-land D. McCormac, Dr. Robert C. Hall, Gilbert Butler, F. Ramsay Devereux, and Frank W. Mattinson, whose terms of office had expired.

Serving with Dr. Miller on the executive staff will be vice-presidents Dr. H. N. Squier and Lt. Cmdr. Kelley; treasurer Hall, and secretary Michael Yust,

all re-elected.\*

Dr. Stephen L. Walczak has been elected presi-

dent of the medical staff of Millard Fillmore Hospital in Buffalo, succeeding Dr. Harry C. Guess, president for the past three years, who declined re-election. Other new officers are Dr. Wendell P. Reed, vice-president, and Dr. Pierce Taylor, secretary-treasurer. They will serve with Dr. Guess, Dr. J. Curtis Hellreigel, and Dr. Herbert H. Bauckus, who were elected to the executive committee.\*

The election of Isidor Leviton, acting president of the Jewish Hospital of Brooklyn, as president was announced on April 2 at the hospital's forty-second annual meeting. He succeeds Capt. Alvin S. Rosenson, now serving in the Army, who was named a vice-president and director. Charles Jaffa was chosen for a seventh term as president of the hospital's Training School for Nurses.\*

Thomas S. McLane, president of the board of trustees of Roosevelt Hospital in New York City, has announced the election of Henry C. Brunie and Walter Hoving to the hospital board of trustees.\*

### **Newsy Notes**

Principals of a hundred and thirty high schools on Long Island received invitations for their students to attend the fifth semiannual Open House Week conducted by the Nursing Council for War Service on Long Island in twenty-three hospitals, Mrs. Dorothy D. McLaughlin, chairman of the council, announced.

Open House Week began March 28 and continued through April 1. Members of the current high school graduating classes, particularly, and students in other grades in the schools were invited to join

groups which made the tours of the hospitals.

Mrs. McLaughlin pointed out that Open House Week was adopted as a recruiting measure two years ago in February and had proved to be the most direct method of reaching high school graduates with a constructive plan by which they can become an immediate part of the war effort.

In addition to this drive to recruit high school graduates as student nurses, the Council is spon-

[Continued on page 1048]

\* Asterisk indicates that item is from a local newspaper.

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[Continued from page 1046]

soring a series of refresher courses for retired graduate nurses to bring them back into active nursing.\*

Membership in the Rochester Hospital Service Plan, previously limited to groups, has been extended to individuals.

The extension was voted in response to "an increasing demand" from persons who cannot qualify on the group basis.\*

The planning committee of the Hospital Council of Greater New York will undertake, as its major project for the year, the preparation of a master plan for hospitals and related facilities, according to Edwin A. Salmon, chairman of the Council and also of the City Planning Commission. Dr. Haven Emerson is chairman of the committee.

The scope of the master plan, it was said, should "show (a) all existing hospitals and institutions for the care of the sick which shall have been determined to be satisfactorily located and provide adequate facilities and distribution of clinical services for the future communities to be served; (b) those existing hospitals and institutions which are satisfactorily located but require certain modifications and additions; (c) all proposed new facilities which shall be deemed to be desirable and which, in addition to existing facilities, shall make adequate provision for a comprehensive plan of hospitals, together with recommended locations of each, with sufficient detail of each facility to provide a complete understanding of the services to be contained therein; and (d) such hospitals as desire to be relocated, closed, or merged with other hospitals.'

The other members of the master-plan committee are Dr. J. J. Golub, vice-chairman; Dr. Edward M. Bernecker, Commissioner of Hospitals; 'the Rev. John J. Bingham, Dr. E. H. L. Corwin, David H. McAlpin Pyle, and Mr. Salmon, all of the planning committee, and Dr. Neva R. Deardorff, Dr. W. G. Nealley, and Arthur W. Jones.\*

Progress in military medicine and what it will mean to future hospital care of civilians was discussed at the second wartime symposium of the United Hospital Fund of New York, which was held on March 27. The program was conducted in cooperation with the Greater New York Hospital Association and the New York Academy of Medicine.

Mrs. Frank E. Adair, vice-president of the United Hospital Fund and general chairman of women's committees, presided at the afternoon program, which follows: "The Hospital and Rehabilitation," Dr. Dean Clark, Senior Surgeon (R), U.S. Public Health Service, Chief Medical Officer; "Social Service in Military Hospitals," Miss Ruth Emerson, Assistant Chief in Charge, Domestic Hospital Program, Military and Naval Welfare Service, American Red Cross; "Current Nursing Program," Dr. E. M. Bluestone, director, Montefiore Hospital for Chronic Diseases; "The Voluntary Hospital and Lay Participation," Mrs. Maurice T. Moore, National Chairman, State Committee

Services, U.S.O.

The program for the evening, with Arthur A. Ballantine, vice-president of the United Hospital Fund, presiding included: "Progress in Military Medicine—The Army," Major General Norman T. Kirk, Surgeon General, U.S. Army; "Progress in Military Medicine—The Navy," Capt. French R. Military Medicine—The Navy," Capt. French R. Moore, Medical Corps, U.S. Navy, (returned from duty with the Marines in the field); "Responsibility of Voluntary Hospitals and Their Medical Staffs in Distribution of Adequate Medical Service," Dr. John P. Bowler, Dean, Dartmouth Medical School, chairman, Committee on Medical Education and Hospitals, New Hampshire Medical Society, and Dr. Leslie K. Sycamore, chief, Department of Radiology, Mary Hitchcock Memorial Hospital, Hanover, New Hampshire, Chairman, Committee on Medical Economics, New Hamp-shire Medical Society; "Hospitals in the Next Decade," Dr. Clarence C. Little, managing director, American Society for the Control of Cancer, and director, Roscoe B. Jackson Memorial Laboratory.

### MENTAL HYGIENE DEPARTMENT MAKES APPOINTMENTS

Twelve major appointments within the State Department of Mental Hygiene have been announced by Dr. Frederick MacCurdy, commissioner.

They include: Dr. Newton J. T. Bigelow, assistant commissioner since September 1, 1943, as deputy commissioner; Paul O. Komora, assistant secretary since August 1, 1942, as administrative secretary; Robert P. Rickards, who has been in charge of the reorganized reimbursement work of the department as director of reimbursement and associate attorney; Dr. Arthur W. Pense, acting medical inspector of the department, as assistant commissioner in charge of inspection service; Dr. Joseph Lee Camp, assistant director at Letchworth Village, as acting medical inspector of the department; Dr. Benjamin Malzberg, assistant director of statistics since

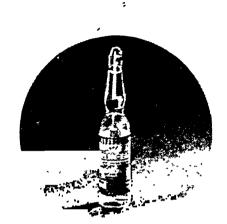
1928, as director of the bureau of statistics; Daniel J. Doran, formerly director of mental hygiene accounts, as business assistant to the commissioner; Leighton M. Arrowsmith, president of the hospital bureau of standards and supplies of New York City, as administrative advisor; Lester C. Elmendorf, former comptroller of the city of Kingston, as supervisor of purplesses. Fronk O. Osborn, formerly head acpurchase; Frank O. Osborn, formerly head account clerk, as chief account clerk; Dr. Alfred M. Stanley, former acting medical inspector of the department, as director of Harlem Valley State Hospital, Wingdale; Dr. John R. Ross, who left the state service in 1943 to serve as superintendent of the Rhode Island State Hospital, reinstated as director of the Hudson River State Hospital, Poughkeepsie.

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### **EULOGY OF THE DOCTOR**

HERE are men and classes of men that stand above the common herd—the soldier, the sailor, the shepherd not infrequently, the artist rarely, rarelier still the clergyman, the physician almost as a rule. He is the flower of our civilization and when that stage of man is done with, only to be marvelled at in history he will be thought to have shared but little in the defects of the period and to have most notably exhibited the virtues of the race. Generosity he has, such as is possible only to those who practice an art and never to those who drive a trade: discretion, tested by a hundred secrets, tact, tried in a thousand embarrassments and what are most important, Herculean cheerfulness and courage. So it is that he brings air and cheer into the sick room and often enough, though not so often as he desires, brings healing.

by Robert Louis Stevenson

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### **ECONOMY IN THE OPERATING ROOM**

Worthwhile suggestions were made by Anna M. O'Neill, R.N., author of "Operating Room Technic", in a recent issue of Hospital Management, on how economies can be effected in the operating room.

These suggestions covered:

All the old gloves that are beyond repair are cut into circular bands 1/2 inch in width. The cuffs making the large size and the fingers making the small size, they make very good elastic bands now that rubber is scarce.

All the knife blades are sharpened each day. They can be used for ten or more operations before discarding.

All the needles bent or having the points blunted are straightened and sharpened.

Whenever it is practical and the consent of the surgeon has been obtained, a metal catheter is used instead of a rubber one; for example, in catheterizing a patient before operation as in the case of a hysterectomy.

Now that Three-in-One Oil is very scarce for instruments, it was found that it was being wasted by pouring it from the bottle. A rubber nipple discarded by the O. B. Department was put on the bottle so a little could be squeezed out at a time.

### BREAKING HABITS

In the Ladies' Home Journal, an article on habits brings out among many interesting disclosures on habits, this sage advice on breaking a habit:

"It is not wise to break any habit. Instead it should be displaced. In other words, form a new habit, don't try to strangle off the old one. Gum chewing, for instance, can be substituted for smoking. Many people have adopted the eating of hard candies to displace tobacco. An outstanding surgeon and congressman from New York State recently stopped smoking by merely not lighting his cigarettes. He carries one in his mouth, unlighted for a couple of hours at a time, and thus gets the mouth satisfaction without other effects.

"When smoking is stopped abruptly, the person is likely to indulge in a wave of extravagence, go on a shopping spree, start lip smacking, or nail biting, or become jittery in general. This is true of most habits people want to break; when 'broken', the habit breaks out in disguised form. There have been too many inspirational preachments to the effect that any habit can be broken if a person only has enough will power.

"Habits can be sidetracked or displaced by new ones, but seldom successfully suppressed. Don't ask yourself, 'Am I strong enough to break this habit?' Instead say, 'What can I do to take the place of it?'"

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### RIBOFLAVIN AND HIGH BLOOD PRESSURE

In a report to the American Chemical Society at its convention in Cleveland, Dr Gustav J Martin of the Warner Institute for Therapeutic Research revealed that tyrosine, an amino acid closely related to many chemical substances taking part in body maintenance, causes an increase in blood pressure when injected into patients suffering from hypertension.

Experiments with animals had previously shown that such results would be found. These experiments also demonstrated that a deficiency of riboflavin, one of the B complex factors, may be associated with the increase of blood pressure.

Tests indicated that an enzyme controls the utilization of tyrosine by the body and this enzyme contains the vitamin B<sub>2</sub> as part of its structure. A lack of riboflavin appears to cause excess amounts of the tyrosine to be discharged through the kidneys and, in passing through, effects that organ in such a way that the blood pressure increase results

### VITAMIN LONGEVITY

Not all vitamins can stand the test of time-a few not even a little-but some will survive for a long time

Barley grains from King Tut-ankh-amen's tomb were tested by the Ministry of Foods, Cereal Research Station at St Albans, England, and were found to contain riboflavin and nicotinic acid, in each case approximately a third the amount found in fresh barley.

These grains recovered from the tomb of the Egyptian king had been entombed for almost thirty-three centuries It is perhaps an error to describe vitamins as "surviving" as they are not living matter but merely chemical molecules, and as such are highly organized structures that can deteriorate under unfavorable conditions.

### OUT OF THIS WORLD

TABLE CLOTH IN 194?—Among the things to come is a table cloth made of aluminum. One company is producing aluminum yarn as a post-war Washable, it never dulls or tarnishes product can be dry-cleaned, and one pound of aluminum will make 11,000 vards of varn.

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### CARBON DIOXIDE ATMOSPHERIC APPARATUS FOR SMALL LABORATORIES

Experiments conducted since early last spring by Staff Sergeant B. Branscombe, Picton, Ontario, a laboratory technician at Petawawa Military Hospital, have culminated in the design and a working model of an inexpensive carbon dioxide atmospheric apparatus used for culture work in small medical research centers.

Staff Sergeant Branscombe's effort in this field is not intended to replace the existing apparatus in use in large laboratories but is designed primarily for smaller labs not equipped with expensive apparatus. The working model described has been in satisfactory use at Petawawa Military Hospital for some time.

The standard method of creating an atmosphere of carbon dioxide, essential for the growth of some bacteria, is the mercury pressure gage—a glass jar with a ground glass top to make it airtight and an electric vacuum pump. Staff Sergeant Branscombe,

in describing the action of his apparatus, claims that his model will produce the same effect as expensive equipment. The carbon dioxide is forced by its cylinder pressure into the lower jar, which forces the fluid in the jar through a tube into an upper jar. The upper jar is graduated so that the quantity of carbon dioxide can be measured to the required amount. The fluid, finding its way back into the lower jar, forces the measured amount of carbon dioxide into the container containing the culture.

Staff Sergeant Branscombe was born in Picton, Ontario, and received his education at Picton Collegiate. In civilian life he was employed as a pharmacist's assistant. Enlisting in the R.C.A.M.C. in Kingston, Ontario, in March, 1940, he has served at Kingston, Barriefield, Richerson Laboratory at Kingston General and Toronto Central Laboratory, until coming to Petawawa Military Hospital in April of 1941.

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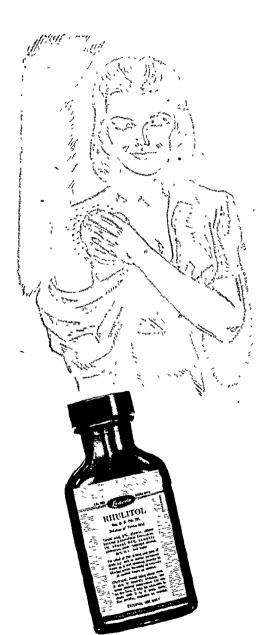
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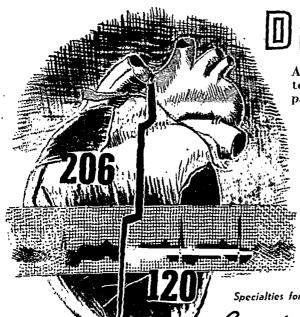
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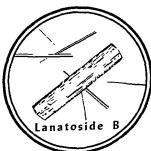
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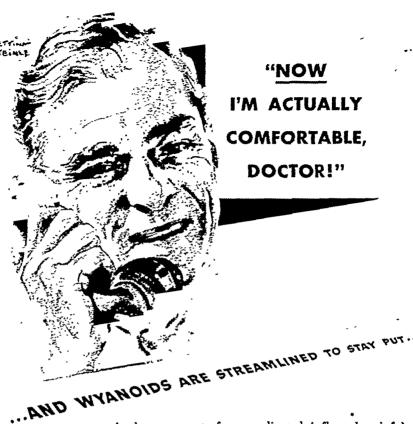


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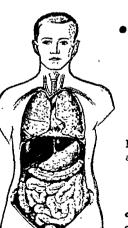
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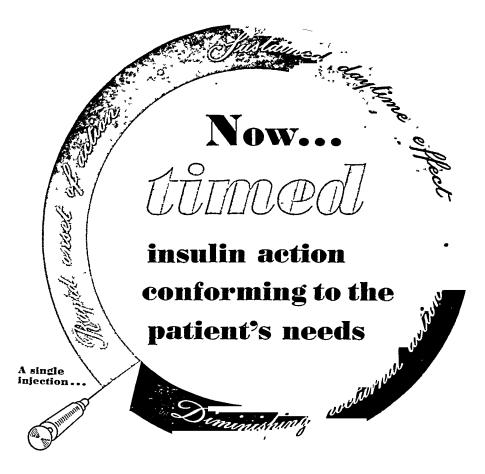
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The non-practicing Medical Staff of the Spa simply oversees the treatments you prescribe. Local specialists are available for your choice, should you feel your patients need medical supervision, while they are here.

For professional publications of The Spa, physician's sample carton of the bottled waters, with their analyses, please write W. S. McClellan, M. D., Medical Director, Saratoga Spa, 155 Saratoga Sp ings, N. Y.



THE EMPIRE STATE'S CONTRIBUTION TO THE MEDICAL PROFESSION



... in the best interest of your patients



## Because we realize

that the best interests of patients require that they receive advice on matters pertaining to health from qualified physicians only, we confine all advertising on our gynecological products to physicians and the druggists who serve them.

OMO SHICAGO JUNE 12:16, 1944 Careful consideration of all the features of the "RAMSES"\* Flexible Cushioned Diaphragm will, we believe, satisfy the physician that the interests of the patient are served best when "RAMSES" Diaphragms are specified.

\*The word "RAMSES" is the registered trademark of Julius Schmid, Inc.



Velvet smooth pure gum rubber dome, Patented Flexible Cushioned Rim.



## MEN FLEXIBLE CUSHIONED DIAPHRAGM

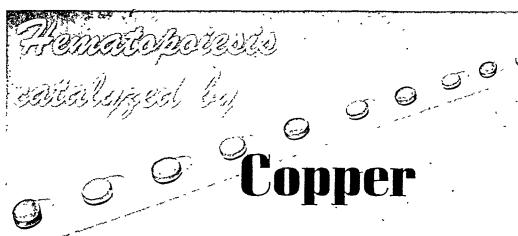
Gynecological Division
JULIUS SCHMID, INC.



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N THE treatment of iron deficiency anemias, numerous clinical and biochemical studies have established that utilization of iron is most satisfactory when copper is present as catalyst.

# ARL-CU-FER

HEMATINIC IN IHON DEFICIENCY ANEMIA

ARL-CU-FER combines iron (in the form of pyrophosphate) and copper in the ratio of 20:1.

# PRO-CU-FER\*

HEMATINIC IN IRON DEFICIENCY ANEMIA

PRO-CU-FER retains this same optimal iron copper ratio but with the iron chemically combined with protein.

Both preparations are supplied in bottles containing 60 tablets. Dosage recommended for adults and children: Four tablets daily, immediately after meals.

ARL-CU-FER and PRO-CU-FER tablets are pleasant-tasting and non-staining. They may be chewed, swallowed whole, or allowed to dissolve on the tongue. These preparations are manufactured under license from The Wisconsin Alumni Research Foundation—Hart patent No. 1,877,237.

THE ARLINGTON CHEMICAL GOMPANY
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The names Arl-Cu-Fer and Pro-Cu-Fer are the trademarks of The Arlington Chemical Company.

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## HAYFEVER

(And other Allergies) SUPER-SEAL

High-Potency Vitamin C (fortified with A & B1)

A highly effective NEW THERAPY that descrives your serious attention in cases of HAYFEVER, Asthma, Eczema, Chemical Dermatilis, elc

VITALLERGY provides Vitamin C fortified with the important Vilamins A of B1 in adequate potencies for faster results . . . greater efficiency

The Special Construction (oils separated from the water-solubles) assures greater absorption . . better tolerance, without after-taste or regurgitation

### FORMULA:

vitamin C		•		•	•	125 Mgm
Vitamin Bi	•				٠	1 5 Mgm
Vitamin A .	•	•	•			2500 USP units

#### DOSAGE:

4 to 8 per day, gradually reduced to maintenance dose of 2-per day In bottles of 40's and 100's

for...

CLINICAL AND SUB-CLINICAL

### AVITAMINOSIS

SUPER-SEAL

## Vitalert

The fal-soluble vitamins, within an acid-proof inner coating, are separated from the water-solubles, assuring maximum absorption of each in its proper media and environment

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Vitamin A .					500	0 USP Units
Vitamin Bi						3 Mgm
Vitamin Br		•		•	•	3 Mgm
Vitamin C	•			•		75 Mgm
Niacinamide	_			•		20 Mgm
Calcium Pant	oth	ena	te	•		I Mgm 0 USP Units
Vitamin D					100	o use units

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PACKAGING . Boxes of 30's Bottles of 100's

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New York Office: 509 Madison Ave. PLaza 8-2501

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With only 0.4% sulfathiazole, this new chemical compound in standard tests—approximates the bacteriostatic potency of 2½% sodium sulfathiazole.

In addition, all the safety and power of Neo-Synephrine is retained—exceptionally fast, prolonged nasal decongestion without appreciable harmful side effects.

# Neo-Synephrine Sulfathiazolate



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"custom-made" Protection, designed to meet the described needs of each particular case? Physicians, who know from experience, can tell you that Rice "custom-made" Supports for reducible HERNIA are truly different and that our methods are dependable. With dozens of different styles, shapes and types of pads at our disposal and with a full realization of our responsibility to those who put their faith in us-we respectfully offer our services for your approval. Descriptive literature and measurement charts on request.

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Mothers appreciate your prescription of CO-NIB because its quick-acting ingredients effectively soothe teething pains.

AN ETHICAL PRESCRIPTION AVAILABLE AT ALL PHARMACIES

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### MUCUS SOLVENT

That's important in treating mucous membranes of the nose.



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"custom-made" Protection, designed to meet the described needs of each particular case? Physicians, who know from experience, can tell you that Rice "custom-made" Supports for reducible HERNIA are truly different and that our methods are dependable. With dozens of different styles, shapes and types of pads at our disposal and with a full realization of our responsibility to those who put their faith in us—we respectfully offer our services for your approval. Descriptive literature and measurement charts on request.

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Rhulitol (Lederle)	1058	Whisky (Johnnie Walker)	1100

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Mothers appreciate your prescription of CO-NIB because its quick-acting ingredients effectively soothe teething pains.

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## MUCUS SOLVENT

That's important in treating mucous membranes of the nose.



# Throat Chemotherapy without Systemic Toxicity

White's Sulfathiazole Gum provides a high and very prolonged salivary concentration of locally active sulfathiazole throughout the whole oropharyngeal area—with almost negligible elevation of the blood level.

One tablet, chewed for onehalf to one hour, promptly initiates a high salivary concentration of dissolved sulfathiazole—and maintains throughout a full hour's chewing period, an average concentration of 70 mg. per cent.

Yet even with maximal dosage, and even in children, resultant blood levels are not even

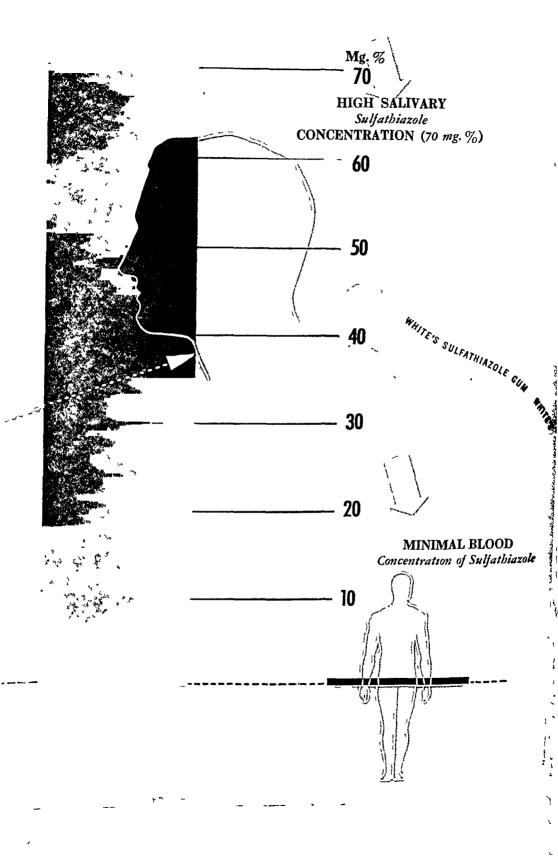
\*ULATHIAZOLE GUM

quantitatively measurable for the most part and at no time exceed 1 mg. per cent. Freedom from the likelihood of systemic toxicity is obvious.

Valuable in the treatment of such conditions as septic sore throat, peritonsillitis, pharyngitis, tonsillitis, infectious gingivitis. Widely prescribed—ethically promoted, of course.

White's Sulfathiazole Gum is supplied in packages of 24 sanitaped tablets, in slip-sleeve prescription boxes—on prescription only. White Laboratories, Inc., Pharmaceutical Manufacturers, Newark 7, N. J.







Remember the days when people laughed at the "gas buggy"...how they would sing out "get a horse" when the horseless carriage rode by? A rarity once, it's an accepted necessity today.

There were days, too, when people avoided MARGARINE. But that was yester-day. MARGARINE's present uniform vitamin A fortification, its nutritious American fats which provide the important unsaturated

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Prejudice against MARGARINE is as ridiculous as would be a prejudice against the modern automobile, for this energy-producing food is part of the seven basic food groups which authorities state are needed for good nutrition.

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Kindly forward a complimentary copy of 'Fats in the Wartime Diet'
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INTRAVENOUS ANESTHESIA

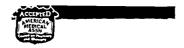
Intravenous anesthesia has been employed in a variety of ways depending upon the clinical requirements:

- As the sole anestheric for operations and surgical procedures of short duration.
- 2 As a method of induction for inhalarion anesthesia.
- 3 In combination with local, regional or spinal anesthesia.
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EVIPAL SOLUBLE IS SUPPLIED IN AMPULS OF 0.5 GM. AND 1 GM.



Brand of HEXOBARBITAL SOLUBLE (Sodium salt of N methylcyclohexenylmethyl barbitum acid)

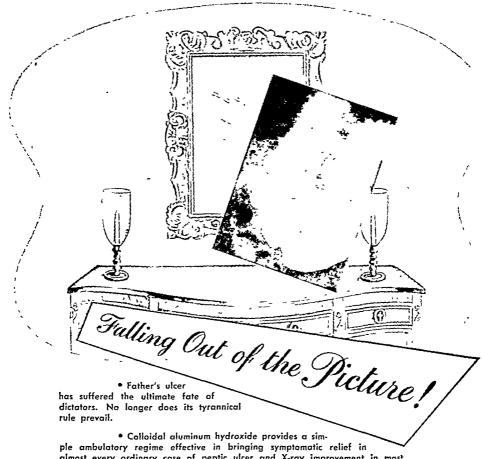


Evipal Soluble has characteristics which make it highly useful for inducing these various types of anesthesia of short duration. Proper dosage gives deep relaxation of voluntary muscles, yet quick awakening and recovery, generally after twenty or thirty minutes.

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PHARMACEUTICALS OF MERIT FOR THE PHYSICIAN

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almost every ordinary case of peptic ulcer and X-ray improvement in most.

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the fluid, orange, aluminum hydroxide

A small teaspoonful (4 cc) of Fluagel combines with at least 100 cc of 0.36% hydrochloric acid. It new tralizes, not twelve times, but 25 times its volume of N/10 HCl. Smaller doses or less frequent administration are permitted, simplifying the therapeutic regimen and making for economy.

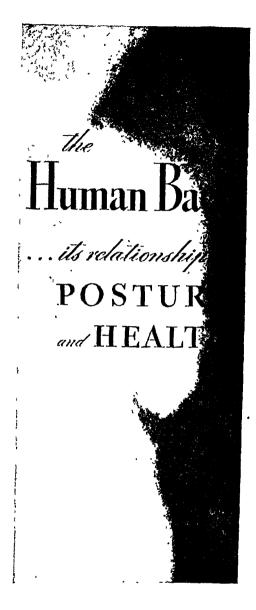


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# When Constipation Must be Overcome



Kondremul, the Irish Moss (Chondrus crispus)-mineral oil emulsion, provides an effective means of relief from frequently encountered constipation. It is non-irritating, assists in softening fecal masses and affords gentle evacuation.

Kondremul, readily acceptable to the patient, is available in three different forms, permitting management of all degrees of constipation.

KONDREMUL Plain—useful when simple regulation is desired.

KONDREMUL with non-bitter Extract of Cascara\*—Particularly useful in the aged where added stimulation is desired.

KONDREMUL with Phenolphthalein\* — (2.2 grains phenolphthalein per tablespoonful)—for obstinate cases of long duration.

You are invited to request a copy of "Bowel Hygiene in Rectal Diseases."

> \*CAUTION: Should not be used when abdominal pain, nauses, vomining or other symptoms of appendicitis are present.



THE E. L. PATCH COMPANY BOSTON WASS.

1004

# For the infant deprived of mother's milk



# SIMILAC SIMILAR TO BREAST MILK

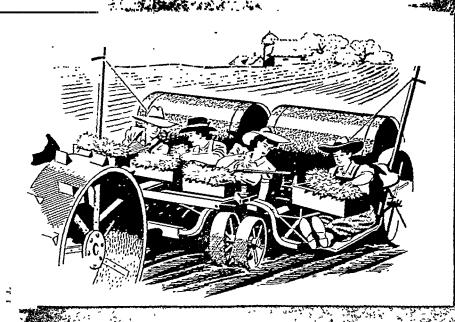
A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butterfat is removed and to which has been added lactose, olive oil, coconut oil, corn oil, and fish liver oil concentrate.



Similac provides breast milk proportions of fat, protein, carbohydrate and minerals, in forms that are physically and metabolically suited to the infant's requirements. Similac dependably nourishes—from birth until weaning.

One level tablespoon of Similac powder added to two ounces of water makes two fluid ounces of Similac. This is the normal mixture and the caloric value is approximately 20 calories per fluid ounce.

M & R DIETETIC LABORATORIES, INC. - COLUMBUS 16, OHIO



# PLENTY OF ACTION IN THE TOMATO FRONT

● Ever see a tomato planting machine in action? That is one pictured above—in a Kemp's Sun-Rayed field. Many of these tractor-drawn machines are manned by women and children who drop the pedigreed seedlings at mechanically timed intervals into furrows which the machine makes, waters, covers. In north central Indiana, where the world's finest tomatoes are grown, we shall pack millions of cans of Kemp's Sun-Rayed brand Tomato Juice to help meet war-time needs. All of it will be made, of course, by themp's patented process which insures high retention of vitamins A, B₁ and C.

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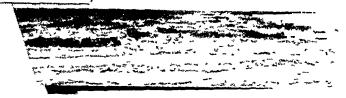




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#### THE DAWN

### OF HOPE



## for today's CARDIOVASCULAR PATIS

As the result of recent studies, 1 2,3 a more optimistic prognosis now prevails for patients suffering with cardiovascular disease The modern classification of such pathology as an acute or subscute condition — rather than as a chronic one-establishes the attainable objective of symptomatic relief, with avoidance of undesirable side reactions

This is capably accomplished, in many cases, with Calpurate -a chemical combination of calcium theobromine and calcium gluconate which . . .

Eases venous congestion through vasodilating and divretic action, and

Increases cardiac output through myocardial stimulation

Of clinical importance because Calpurate has the advantage of being almost insoluble in the stomach, yet readily absorbable by the intestine, it is remarkably free from gastric irritation 4

Calpurate is especially indicated in angina pectoris, cardiac edema, coronary sclerosis, Cheyne-Stokes respiration, and paroxysmai dyspnea.

Dosage. 1 or 2 tablets, or 7 to 15 gr. powder

Packaged. As tablets (each containing 712 gr. calcium theobromine - calcium gluconate), in bottles of 100, 500 or 1,000-or as powder in 1 oz. bottles

Also available, with 14 gr. phenobarbital added per tablet.

## CALPURAT

CATION SIGES:



#### REFERENCES

- 1 Gilbert, N C and Kerr, J A JAMA, 92 201 (Jan 19) 1929 Gil-bert, N C Quart Bull Northwest-
- ern Univ., 16 179 (Oct.) 1942 2 Massel, H. M. J. Lab & Clin Med., 24 380, (Jan.) 1939
- Boyer, N H J A.M.A., 122.307, (May
- Ziskin T Journal-Lancet, 57:292 (July) 1937

THE MALTBIE CHEMICAL COMPANY . NEWARK, N.J.

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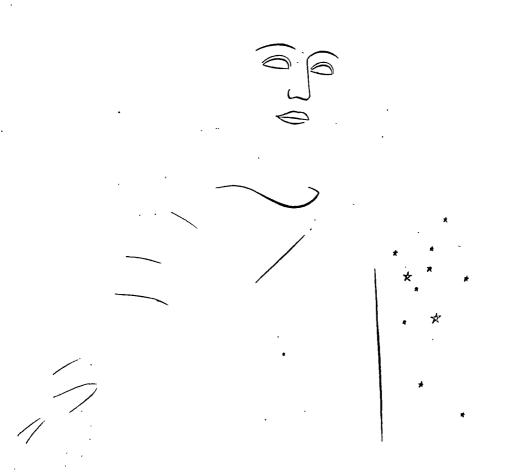
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# NEW YORK STATE JOURNAL OF MEDICINE

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**VOLUME 44** 

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## Editorial

#### What Others Think, IV

From the Bulletin of the Council on Medical Service and Public Relations of the A.M.A., under date of March 25, 1944, we excerpt the following:

The American Bar Association has released the report of its special committee to study the portions of the Wagner-Murray bill relating to Federal control and regulation of medical practice and hospitalization. This report considers in detail the provisions and implications of S. 1161, and fills thirty-five double-spaced typewritten pages.

The following summary has been taken from the

last two pages of the report:

The American Bar Association is limited to an expression of opinion and judgment with respect to those fields which relate to the administration of justice and which directly affect the safeguards and protection of the rights and liberties of the citizens of this country. Under normal circumstances, therefore, it is not the function of this Association to attempt to influence substantive legislation by the Congress of the United States. But when under the pretext of the general welfare legislation is proposed in Congress which either inadvertently or with deliberate subtlety constitutes a direct attack on the rights and liberties of the citizens of this country, it becomes the duty of this Association actively to voice its objections, a summary of which is as follows:

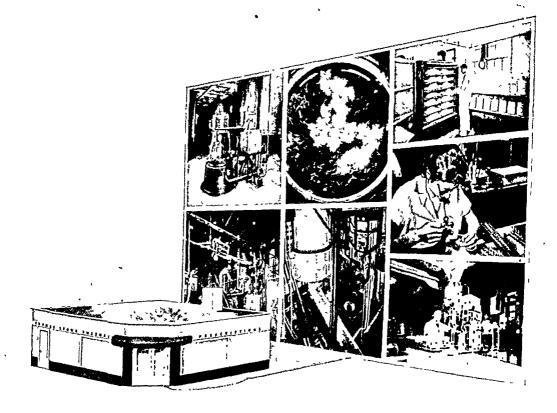
- 1. Local self-government must be preserved in our Federal system. State governments directly responsible to the will of the people are best adapted to exercise such supervisory control as may be instituted over the health and medical care of our citizens.
- 2. S. 1161 seeks to invest in the Surgeon General, who is not an elected servant of the people and who is not amenable to their will, the power arbitrarily to make rules and regulations having the force and effect of law which directly affect every home.
- The measure furnishes the instrumentality by which physicians for their practice, hospitals for their continued existence, and citizens

for their health and that of their families can be made to serve the purposes of a Federal agency.

- 4. The bill fails to safeguard the rights of patients, citizens, hospitals, or doctors with respect to disputes arising or rights denied through the arbitrary or capricious action of one man.
- The bill fails to provide for any appeal to any court from the action of the Surgeon General.
- 6. The vicious system whereby administrative officials judge without court review the actions of their subordinates in carrying out orders issued to them is extended in this bill to a point foreign to our system of government and incompatible with the adequate protection of the liberties of the people.

The Constitution of the United States is designed to protect the citizens of this republic in the exercise of the rights of free men. The provisions of that instrument can be rendered impotent, when our citizens, for the sake of an apparent immediate benefit, surrender to their government such direct control over their lives that government, by imposing a constant fear upon them of having those benefits withheld or withdrawn, can compel from them obedience and subservience to its dictates.

The objections of the American Bar Association to the provisions and implications of S. 1161 seem to us well founded, and we hope that our membership will seriously study them and pass them along to other taxpaying citizens. The objections are clearly stated and will be comprehended by all physicians, whether they agree with them or not. Erosion of the constitutional safeguards of the rights of the individual has proceeded far enough; surrender to government of direct control over the lives of the citizens has progressed dangerously. But



# Thomas Brown, Ph.G.

In common with thousands of other pharmacists throughout the nation, Thomas Brown endeavors, at all times, to render a competent professional service. Physicians tributary to his store know that so far as medication is concerned their responsibility ends with the writing of the prescription. They can safely leave the rest to Pharmacist Brown.

Although Mr. Brown's first responsibility is compounding prescriptions, he also performs small-scale manufacturing. Many preparations can be made advantageously in his own laboratory.

For others, however, he must depend on the large manufacturers. In this classification are the barbiturates which require a wide range of equipment for production and control.

Eli Lilly and Company has been prominent in the study of the barbiturates and is responsible for 'Amytal' (Iso-amyl Ethyl Barbituric Acid, Lilly), 'Sodium Amytal' (Sodium Iso-amyl Ethyl Barbiturate, Lilly), and 'Seconal Sodium' (Sodium Propyl-methyl-carbinyl Allyl Barbiturate, Lilly), each a leader in its field.

Eli Lilly and Company, Indianapolis 6, Indiana, U.S.A.

Lilly BUY WAR BONDS FOR VICTORY

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Miss Lenroot is quoted in these minutes (which we understand were prepared by the Children's Bureau) as stating that the Emergency Maternal and Infant Care Program "has never been presented to Congress, the Bureau of the Budget, or to anyone else by the officials of the Children's Bureau, as anything but an emergency program, 'emergency' meaning the usual definition of the war period and six months following the termination of the war."

Further on Miss Lenroot apparently reiterated this opinion in stating that she wanted "to make it clear-that this Emergency Maternity and Infant Care Program was developed in response to need and was in no way a part of any master plan or strategy."

Dr. Martha M. Eliot, associate chief of the Children's Bureau, apparently has other views. In the June, 1943, issue of Briefs, published by the Maternity Center Association of New York City, Dr. Eliot contributed an article entitled, "Design for

Tomorrow's Maternity Care."

There she is quoted: "There would seem to be little reason why decisions should not be reached now as to the general framework and many of the details of a plan for public maternity care and medical care of children to be put into effect after the war. At best, it will take ten years to develop the program in all its parts."

Is the E.M.I.C. program a guinea pig experiment?

No one is any longer to be cajoled by the promise that most of these programs are of an "emergency" nature.

"The story of the exchange of liberty for order, stability, and security under Fascism is the story not alone of wicked men, grasping for power and then abusing it. Far more tragically, it is the record of good men, gulled into thinking that measures distasteful in form were none the less tolerable because they were to be carried on for good ends."1

We have had sufficient warning in the texts of much current and some proposed legislation of a kind of thinking which, under pretext of the promotion of the general welfare, "either inadvertently or with deliberate subtlety constitutes a direct attack on the rights and liberties of the citizens of this country." We either heed that warning or we do not. Coming from the American Bar Association, the monition carries a weight of authority that cannot be disregarded.

#### Peptic Ulcer—A Constitutional Disease

Modern medicine is composed of synthetic and hyphenated elements. This is exemplified by the use of such terms as "psychosomatic diseases" and other kindred titles which signify the interrelationship of the mind and body, and other systems or organs in the evolution of disease. In this modern category peptic ulcer has now been assigned a corner, a distinct advance from the time when there prevailed the concept of this disease as a purely localized one, and it was treated accordingly.

Recent surveys of peptic ulcer reveal many factors involved in its pathogenesis.1 The role of heredity and environment has been summarized in the sentence "Peptic ulcer is a case of selective environment acting on favorable constitutional terrain."2 It is a disease of the young, four to five times more frequent in the male, occurring more commonly in the energetic races-in the white race rather than in the Negro or the yellow race. The "drive of civilization" may be the reason for the greater susceptibility of white people. It is curious that treatment is more resistant and protracted in the spring. It may also be significant that a high percentage of ulcers are multiple.

The psychic and neurogenic elements have been forcefully emphasized by nearly all recent students of this question. In peptic ulcer neurosomatic and psychosomatic factors play a major causative role.3 Hyperchlorhydria, hypertonus, and hyperperistalsis can all be produced by stimulation of the vegetative nervous system or its diencephalic center. Disharmony, motor instability, and unusual reactivity can also be caused by parasympathetic reactions. The psychologic panel reveals constant nervous and mental strain, fluctuating emotional capacities, rapid exhaustion of nervous and emotional energy, and overactive psychomotor activity.

Such studies diverge widely from the narrow and now outworn concept of peptic ulcer as a disease of the stomach or duodenum. The modern view is that peptic ulcer is a local manifestation of a systemic state; a local secondary phenomenon secondary to constitutional predisposition. The disease is induced by neurosomatic elements of a constitutionally predisposed nervous and emotional system along inherited, grooved pathways. The modern physician must hence treat the patient with a peptic ulcer, not simply the peptic ulcer.

<sup>3</sup> Wolf, S., and Wolff, H. G.: J.A.M.A. 120: 670 (Oct. 31)

<sup>&</sup>lt;sup>1</sup> Federal Grants-in-Aid, published by the Citizens' National Committee, 1409 L Street, Washington, D.C.

<sup>&</sup>lt;sup>1</sup> Kanevsky, J.: Am. J. M. Sc. 206: 90 (July) 1943. <sup>2</sup> Draper, G.: Human Constitution, Baltimore, Williams &

there are signs that the people are ready to protest.

The National Physicians' Committee for the Extension of Medical Service has released the findings of the survey conducted by the Opinion Research Corporation of Princeton, New Jersey. This report shows that only 16 per cent of the American people approve the Wagner-Murray-Dingell bill to regiment the medical profession with the 6 per cent social security tax for employer and employee.

Other findings of this report are given in a news item, published in the Chicago Daily News, March 8, 1944:

The twenty-nine questions asked in the survey brought such answers as these:

Fifty-six per cent insist on personal choice of a physician; 79 per cent have their own doctor, and 81 per cent feel that the doctor takes a personal interest in them.

Seventy-seven per cent believe that their doctor's charges have been reasonable and satisfactory, but 29 per cent said they had put off going to a doctor because of prospective costs.

Sixteen per cent would be willing to pay from \$2.00 to \$6.00 a month to guarantee themselves full health care.

The survey also showed that more than 22 per cent of American workers already are protected by health payment plans.

At the same time less than one in ten persons interviewed regarded the American Medical Association as a "trust" or a "union."

Concluding the report, the committee called on the medical, hospital, nursing, and other related professions, the insurance companies, organized labor, business, and industry to act together to solve a problem that is "not exclusively a medical responsibility."

On the president's page of the February, 1944, number of the Michigan State Medical Society *Journal* appears the following, which is signed by Dr. C. R. Keyport, and which we reprint in part:

#### FREE ENTERPRISE IN MEDICINE

Permit me to quote a few statements made in the House of Representatives, December 7, 1943, by the Honorable A. L. Miller of Nebraska:

"The practice of medicine under the free institutions of this country of ours has advanced the healing art until it is the envy of the whole world. In the short space of one hundred and fifty years it has so improved the health of this nation that the life expectancy has been nearly doubled. Where it was thirty-five years, it is now sixtythree years. New technics for treating disease have been developed and new drugs have been discovered. The sulfa drugs and penicillin are just the latest examples. Free men with great minds have founded medical schools and colleges and established laboratories for research. There has been a ceaseless probing and searching of the unknown for the purpose of curing disease. Many of the terrible diseases of the past have been rendered almost harmless. Today, twice as many of our wounded now recover as in the last World War....

"During the past year, we have seen how one Bureau (U.S. Children's Bureau) through its bureaucratic thinking and its directives has whipped into line the medical profession in every state with but one or two exceptions. This is just a small entering wedge. Are you doing your part to prevent a repetition of this on a larger scale? Are you fighting to keep free enterprise in Medicine—and to keep out a complete medical bureaucracy?"

Where is Federal infiltration to stop? He who has the purse calls the tune. As the Citizens' National Committee¹ states: "In the fiscal year 1942, the United States government made payments to the States, of the type known as grants-in-aid, totaling \$693,900,000. Other Federal payments within, but not directly to, the States, resembling grants in various ways and known as quasi grants, amounted to \$2,462,900,000.....

Not until very recent times did Federal subsidies by-pass the state government or exercise a leverage upon that government to levy taxes and make appropriations which in its sole and individual judgment it would not have done. It reveals that the process first of inducing states and then of coercing states has many stages between persuasiveness and compulsion and that what starts as humanitarian reform may end as a centralized bureaucracy.....

Prior to the great depression, Federal payments to the states never reached an annual total of \$200,000,000. Thereafter they spurted. The following figures reveal the increase of grants-in-aid, from a figure of less than \$6,000,000 in 1912.

Year	Millions
1917	13.6
1922	
1927	134.1
1932	264.7
1937	393.7
1942	693.9

These figures show a significant and unmistakable trend. A trend toward the increasing control of state and local policy by financial dictate by the Federal government. An example of this is the method employed by the Children's Bureau in setting up the E.M.I.C. program.

The following is taken from the editorial page of the Wisconsin Medical Journal, March, 1944:

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# Herbert H. Bauckus, M.D.

Dr. Herbert H. Bauckus was born in Town Line, New York, on March 24, 1892. He was graduated from the University of Buffalo in 1914 and has practiced in Buffalo as a dermatologist since that time. He served as chairman of the Buffalo Board of Health from 1938 td 1941.

Dr. Bauckus has been president of the Erie County Medical Society, chairman of the Committee on Public Relations and Economics of the Medical Society of the State of New York, as well as chairman of the Subcommittee on Voluntary Nonprofit Medical Expense and Indemnity Insurance. He was also chairman of the Subcommittee for the Study of Industrial Health and a member of the Joint Committee on Dental Health of the State Medical Society and the State Dental Society. He was also a member of the Planning Committee for Medical Policies of the Medical Society of the State of New York.

In 1943 he became President-Elect of the Medical Society of the State of New York.

# Laws or Men?

The recent seizure by the government of the Montgomery Ward Company, a concern which to the ordinary mind is not one producing munitions or war material of any kind, seems indicative of the attitude of government toward private enterprise in general. In that a certain portion of the institution of medicine still remains "private enterprise" it is directly concerned in this case, and in its outcome. As Mark Sullivan says:

Much depends on whether the people—the average man and every man—can be made to see how far and deep the Ward case goes. To do this calls for re-education of our people in principles of government and law and individual rights—principles so long taken for granted that the average person has come to think of them as a part of the permanence of nature, like the weather and the rotation of the seasons. A new generation of Americans must learn that these principles had to be established by struggle and now must be defended by vigilance.

True, these principles are modified by war, but the modifications justified by war are as definite as the principles themselves. The modifications, like the principles, are set down in the Constitution, in laws written by Congress and in judicial decisions and precedents.

Further, the Ward case cannot be looked upon as an event standing alone, as if it took place in the vacuum of war. Everyone knows that the tendency toward what the Ward case involves—increased power of government to regulate the citizen, to put compulsion upon him—began before the war. The tendency has gone on for more than ten years. . . . . And it is in the light of this broad tendency that the Ward case must be judged. 1

1 New York Herald Tribune, May 1, 1944, page 15.

While it is true that there is not yet any question of contract between medicine as "private enterprise" and labor organizations with maintenance of union membership, dues check-off, seniority rights, grievance machinery, and arbitration of disputes, who is to say that it is not to come?

Already, for example, medical schools, hospitals, clinics, schools public and private, not to mention industrial plants where medicine is practiced as "free enterprise," are points at which, as part of the concern, the medical profession, since it works there, is subject now to such seizure as is illustrated by the Montgomery Ward case, with the Army blocking entrances and exits.

Add this to such proposed legislation as the Wagner-Murray-Dingell bill with its arbitrary dictatorship of the Surgeon General of the U. S. Public Health Service and you have something really serious to think about. Add also government control by subsidy, grants-in-aid, and arbitrary regulation such as that exercised by the Children's Bureau of the Federal Department of Labor and you have something even more serious to consider.

Expanded hospitalization seems also to be inevitable. Veterans and their families must, of course, have fuller hospital and health service, some forty millions of them, in all likelihood. Will medicine as "private enterprise" staff these hospitals in the next twenty years? What do you think?

#### Correspondence

Neither the Publication Committee nor the Medical Society of the State of New York is responsible for the opinions expressed in this column. All letters for publication must bear the name and address of the correspondent.

April 28, 1944

Dr. Peter Irving

NEW YORK STATE JOURNAL OF MEDICINE

My Dear Dr. Irving:

The National Naval Medical Center, of Bethesda, Maryland, is endeavoring to collect for its archives a complete set of commissions issued to naval medical officers, and signed by past Presidents of the United States.

There is a small nidus now at the Center and it is hoped to be able to build this up to completion. Through the Navy Department Library and the National Archives a few more have been located. I am wondering whether you would care to insert a small item in your JOURNAL to this effect, with the idea that various libraries or individuals may have

in their possession such old commissions and would be willing to turn them over to the Center. If such are found and the owners are so generous, there could be no more fitting enshrinement to them than their use for this purpose.

Any assistance that you and the JOURNAL can extend will be greatly appreciated by the Surgeon

With best regards.

Sincerely yours,
ROBERT C. RANSDELL
Commander, (MC), USNR
Division of Publications
Your Reply to

Address Your Reply to
BUREAU OF MEDICINE AND SURGERY
NAVY DEPARTMENT, WASHINGTON 25, D.C.,
and Refer to No.—BUMED-B-DLS

# THE EARLY DIAGNOSIS AND EARLY TREATMENT OF CONGENITAL DISLOCATION OF THE HIP

FREDERICK R. THOMPSON, M.D., Sc.D. (MED.), New York City

IN CONSIDERING the early diagnosis of a congenital subluxation of the hip, it is necessary to remember that there are characteristic roentgenologic features which occur before the hip is actually dislocated. The name "dislocation of the hip" is a name applied to the condition when the head of the femur is out of the acetabulum. A more accurate nomenclature of the true basic condition is an "acetabular dysplasia." Actual dislocation of the head of the femur out of the acetabular socket is a secondary mechanical accident which is the result of this primary dysplasia. The primary dysplasia takes the form of a shallow acetabular socket which can be seen in the roentgenograms of the child from the time of birth and every week there-

The diagnosis is not difficult and is made easily after one is familiar with, and is quite certain of, the shape of the normal acetabulum in normal infants.

The cause of congenital dislocation of the hips lies definitely in a hereditary factor which is transmitted through either side of the family. This hereditary factor is a primary dysplasia or underdevelopment of the acetabular socket. The acetabulum instead of having a normal deep socket is shallow and oblique. Normal function of the hip in the presence of this faulty mechanics could permit the femoral head to dislocate in utero, at birth, or at any time subsequent to birth. Many of these acetabulae are not oblique enough to allow frank dislocation ever to take place. Although dislocation may not take place, the hip is still an abnormal hip and frequently causes persistent trouble and symptoms. It is important to remember this fact of dysplasia because there is much evidence to show that the socket can be made to develop properly if the hip is treated early. The sooner these measures are instituted, the quicker and the better is the acetabulum made to assume its normal shape. The early treatment is important from a second standpoint because the improper function of a shallow acetabulum seems to allow the head of the femur also to develop improperly. Many of the failures in the treatment of congenital dislocation of the hip, this author believes, are due to the fact that the secondary maldevelopment of the head has been

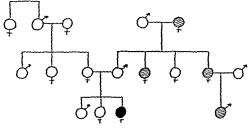
Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 5, 1943. From the Orthopaedic Service of St. Luke's Hospital, New York City

allowed to progress so long that it cannot reshape the primary acetabular defect.

#### Causation

The etiology of primary hip dysplasia has been studied very thoroughly by Faber. He has made unique studies of roentgenograms of families in which dislocation of the hip has occurred (Fig. 1). The roentgenographic consanguinity studies through several generations show that every gradation of an acetabular dysplasia may be present from a slight obliquity to one that is so oblique that the hip will dislocate. There seems to be a general rule that dislocation occurs more frequently in the female than in the male. The actual incidence of this frequency that is seen clinically is six females to one male. It is believed that the reason for this is that in the female the innominate bone is normally more nearly perpendicular than it is in the male. If a pelvic obliquity exists, this obliquity is closer to the perpendicular in the female than in the male, and the mechanics of normal function will allow the hip to dislocate. This proportion of six to one is seen to be materially lessened when one studies the roentgenograms which show only the dysplasia of the acetabulum in which no dislocation has occurred. Then the sex ratio between males and females is practically the same. In other words, in hereditary studies of roentgenograms of families with congenital dislocation of the hip there are

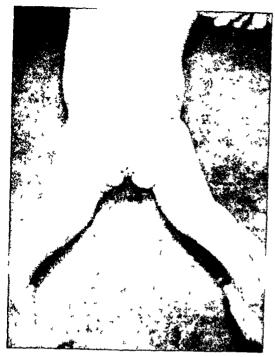
CONSANGUINITY ROENTGENOGRAPHIC



O = Normal Hips.

= Dysplasia without dislocation.
 = Dysplasia with dislocation.

Fig. 1. (Modified after Faber). The dysplasia gene is dominant and is transmitted through either side of the family.



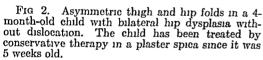




Fig 3 A 13-month-old child who had an open reduction of dislocated left hip seven months before this picture was taken. Right hip is slightly dysplastic. Notice that the difference in thigh folds is still present.

just as many abnormally developed acetabulae in the males as in the females.

Hart2 has brought Faber's work to the attention of the American literature and has elaborated on this hereditary factor. He points out that Faber demonstrated that dysplasia of the hip joint without dislocation was three times as frequent as was the classical hip dislocation. In a total of 98 cases of primary hip dysplasia, 25 were actually dislocated and 73 were without dislocation. The dysplasia is consequently four times more frequent than had been supposed. There does not seem to be a sev linkage in the hereditary pattern. The gene is transmitted through the mother as well as through the father. It may be transmitted from father to son, but there is rarely any evidence that it is confined to the male or the female side of the family. The gene is dominant, and for this reason the faulty acetabulum should be seen in roentgenograms of the parent's pelvis. For this reason, too, the parents of children with dislocated hips should be roentgenographed to see if they have a dysplastic acetabulum, and measures should be taken to anticipate the symptoms that they subsequently may develop. All children of parents with dislocated hips or children with a

hereditary history of dislocated hips in the family should be roentgenographed at birth. It is only fair to advise parents of this tendency to dysplasia when they anticipate having children. Preiser<sup>3</sup> and Wiberg<sup>4</sup> have shown that parents with this latent dysplasia of the acetabulum develop a rather severe osteoarthritis of the hip joint.

In many cases in which a true dislocation exists in one hip, a dysplasia of the acetabulum may be seen on the opposite side. This fact is occasionally overlooked and only may be brought to the physician's attention when the so-called normal hip develops symptoms. For this reason, it is important to have a thorough knowledge of the shape of a normal acetabulum in a newborn infant.

# Early Diagnosis

From a practical standpoint it is not feasible to roentgenograph the hips of every newborn child. This would entail considerable expense for the parent and make an unnecessary increase in the cost of medical care. Many people object to having their children roentgenographed unless it is absolutely necessary. With this practical obstacle in view, it is therefore neces-

sary to resort to clinical means to arouse one's suspicion enough to demand a roentgenogram. If the hip is frankly dislocated, the diagnosis is self-evident. The child does not move the affected leg normally. There is a definite asymmetry of the contour of the body. The gluteal fold is high, and examination will reveal that the hip telescopes as the femoral head moves past the acetabulum. In the cases in which the hip is not dislocated but a shallow acetabulum exists, the diagnosis is more difficult. One must remember that a dysplasia of the acetabulum occurs three times more frequently than an actual dislocation. These children often show a definite difference in the creases of the thigh and of the gluteal fold. It is true that many normal children also possess these differences in the thigh folds. As one eminent pediatrician has told me, he has roentgenographed many babies because of this asymmetry in thigh folds but has not as yet found a definitely abnormal hip. This is a very practical objection, but it is difficult to see how one could notice the asymmetric folds and still not take the roentgenograms to make sure that no dysplasia exists. In all of the very early cases which the author has seen, where a dysplasia actually was present, there has been a definite asymmetry in the thigh folds. This asymmetry varies a little depending upon whether or not the child lies straight on his stomach with his legs in a straight line with the body. When it is seen, however, the assymmetry is very definite. Minor changes in the creases are more apt to be due to differences in the alignment of the body as the child is lying on his stomach. Whenever a gross difference occurs, we have noticed that the roentgenogram shows a dysplastic acetabulum (Fig. 2). It is difficult to explain the presence of this asymmetry when the hip is merely dysplastic and is not actually dislocated. The asymmetry is merely a fold in the rather thick fat that covers the thigh. One can readily understand how a hip that is dislocated and which has telescoped and shortened would cause a difference in the folds. When no dislocation has occurred, however, it does not seem reasonable that the folds should be present. It has nevertheless been our experience that they are present. They remain present in actual dislocations that have been reduced either by closed reduction or by open reduction for a period of about a year (Fig. 3). It seems to be extremely fortunate that we should have this clue to an early diagnosis. The difference in the folds of the thigh are most apparent when the child is lying on his stomach, but they are also apparent when the child is lying on his back and is viewed from the anterior aspect.

#### NORMALS

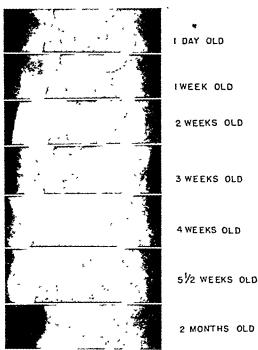


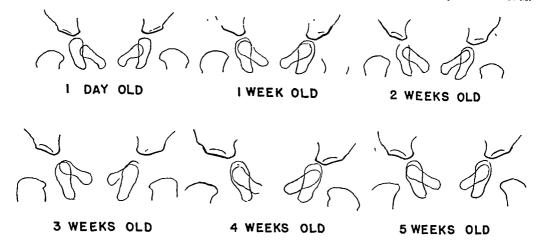
Fig. 4A.

The clinical sign of a widening of the perineum is present only when one or both hips is actually dislocated. We have not noticed a wide perineum in children when no dislocation has taken place. For this reason particularly, the textbook sign of the tip of the greater trochlear lying above the level of Nélaton's line is rather superfluous. This sign is only positive when the hip is dislocated, and dislocation is best determined when the examining hand feels the telescoping.

A positive Trendelenburg sign is likewise only applicable to older children who are standing. The diagnosis should be made before that time.

# Roentgenographic Diagnosis

When suspicion has been aroused that a dysplasia of the hip exists and roentgenograms have been taken, it is important to know what constitutes a normal hip in the newborn before one can be sure that dysplasia of the acetabulum exists. Roentgenograms of a one-day-old child show that a definite acetabular socket is present at birth. One cannot see this socket perfectly formed, since the three bones that make it up are not joined. The ischial and pubic portions appear as two separate ossifying centers or as two separate bones that overlap each other in a wishbone shape (Fig. 4). The iliac bone, however,



#### NORMAL HIPS

Fig. 4B. Tracings of normal hips. Notice how well the acetabulae are developed at even one day of age. By four weeks there is a definite acetabular shelf which is almost horizontal to the ground. The depth of the socket can be noticed in the original roentgenogram and is denoted here by a faint black line. Compare these normals with Fig. 5B.

gives us the greatest value in determining whether or not the acetabulum is normal. In all normal hips this iliac portion of the acetabulum presents a contour in which some portion of the tip of its outward curve is parallel to the base line or to the ground. In other words, the acetabulum seems to form a roof which is sufficient to hold the head beneath it if the child were to stand. In the dysplastic hip the curve is shallow, and at its outward tip it does not run parallel to a base line but slopes on upward toward the crest of the ileum.

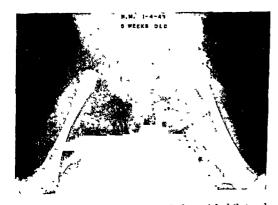


Fig. 5A. J. L., 5-week-old baby with bilateral dysplastic acetabulae without dislocation. Notice the difference in the thigh folds. Notice the shallow acetabulae.

Some authors, notably Wiberg, have drawn this base line through the center of the acetabular socket and have named it the "Y-line" because it runs through the center of the Y-shaped cartilage which is anatomically called the triradiate cartilage (which is formed by the suture line or joining together of the ischium, pubis, and iliac bones as they synostose). Other authors have drawn angles from this Y-line corresponding to the tilt of the iliac portion of the acetabular socket from the vertical. When this is done, it is seen that the dysplastic acetabulum subtends a larger angle than does the normal. This is a rather complicated type of measurement when the examining eye can easily pick up the fact that in the normal the roof is sufficient and that in the dysplastic acetabulum the roof is so shallow and oblique that the head could slip

The epiphyseal center for the femoral head is not visible at birth and does not appear for about six weeks, when it may be seen as a faint shadow that is a little denser than the surrounding soft tissues. It has been claimed that in older children this epiphyseal center of ossification is underdeveloped as compared with the normal hip. This is by no means a constant fact and should not be considered as a diagnostic sign. It is easy to tell when the head is subluxated in the roentgenogram because it lies on a higher level in relation to the acetabulum than does the normal. Normally it should lie

# DYSPLASTIC HIP

Fig. 5B. Tracings of five dysplastic hips without dislocation. Number 4 was dislocated one month later. Notice the obliquity of the acetabulae in all cases and the shallowness of the depth of the socket as denoted by the faint black line, which could be easily seen in the original. Number 5 has a severe dysplastic left hip where arrow points, but right hip too is not normal. This right hip later did not develop as well as the left hip did following its open reduction. See Fig. 7.

definitely below the transverse Y-line drawn through the center of the acetabulum.

Another sign, "Shenton's line," is present only when the hip is actually dislocated out of the socket, and since this is perfectly self-evident when it occurs, the sign need not be elaborated upon.

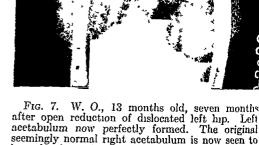
The normal child at birth, therefore, presents a socket which can be seen to be adequate in supporting the child's weight if the child were standing. In the subsequent weeks the socket deepens and the iliac portion of it becomes more parallel to the ground line. The dysplastic hip, on the other hand, remains shallow (Fig. 5). In cases in which a normal hip is present on one side with a dysplastic hip on the other the discrepancy in contour is very marked after a moment's examination. If one examines the film of a normal acetabular socket in an adequate light, one can see, by the end of the third week after birth, the faint white line which denotes the depth of the socket. This is occasionally seen in earlier weeks or even at birth (Fig. 4B). In the dysplastic acetabulum, on the other hand, this faint black line (Fig. 5B) is not easily seen and when it is seen, it shows that the socket is very shallow. When the child is 2 months old, this formation of a socket is quite marked in the normal and very inadequate in the dysplastic acetabulum. One must remember in the film made of a dysplastic acetabulum that the opposite or seemingly normal side is very often not entirely normal. Many of these children have a dysplasia which is more pronounced on one side than on the other. The side in which it is the more pronounced will subluxate more quickly since the normal function of the hip tends to allow this to occur.

#### Conservative Treatment

In considering the treatment of dysplasia of the hip or of actual dislocation of the hip, the socalled conservative treatment is not always the wiser choice. From a practical standpoint one knows that the conservative treatment will be employed by almost every orthopaedic sur-



Fig. 6. A 4-year-old child treated by conservative therapy for bilateral dislocated hip. Although tive therapy for phateral discounting the the acetabulae have developed satisfactorily, the hip is permanently and irrevocably ruined by bloodless reduction. Only salvage is possible now. A major tragedy. (Courtesy of Dr. D. M. Bosworth, who did not treat the hip in the beginning).



be a dysplastic hip and is less developed than the

geon in the beginning. In young infants it is frequently a great temptation to persist in this conservative treatment rather than to decide, in the best interests of the child's hip, to operate and employ a seemingly more radical therapy.

If a diagnosis is made within the first two months, there is no question that the best way to treat the patient is by separating the legs into wide abduction and internal rotation and holding them there with some appliance. Some prefer the use of pillows and metal splints. Others prefer plaster of paris. We have found the application of a plaster cast an extremely practical thing. We know that the legs are held in their proper position and that they will stay there. The nursing care is extremely easy. The cast is loose enough to allow the child to grow with only infrequent changes of plaster. The child need not stay in the hospital; he can be handled at home by the mother and can be transported with

At this early age it is rarely necessary in simple cases of acetabular dysplasia to employ an anesthetic in applying the plaster spica. Simple abduction and internal rotation of the femur are sufficient. The child cries and fusses a little, but this is relieved within a few hours. We do not like the frog-leg position of flexion and internal rotation as well as the above position. Changes of plaster are required, as a rule, every four weeks as the child continues to grow. On subsequent changes of plaster the child rarely makes an outcry. There is obviously no tension or stress on the head by this time. In

those cases where the hip actually has been dislocated, the author prefers to reduce the hips under an anesthetic. If the head has been dislocated, it is under some tension when it is inserted into the acetabulum during the reduction. There is always a danger that this tension will cause an aseptic necrosis or melting away of the epiphyseal center in the femoral head. This danger is not slight, as many have been led to believe. When it does occur, it is a grave tragedy in the life of the individual (Fig. 6). The hip joint is permanently and irreversibly damaged. For this reason, when tension is required to reduce a dislocation of the hip, it is believed much the wiser course to do an open reduction even in the earlier months of life. We have done this open reduction at as early an age as 5 months. This is much earlier than the time chosen by most surgeons. The length of time necessary to hold the child in plaster varies with the individual case. The determining factor should be the development of an adequate acetabulum by roentgenographic examination.

The youngest child whom the author has treated by this conservative method was 5 weeks old. It took until the child was 61/2 months old for the dysplastic acetabular sockets to develop sufficiently to discontinue the need for further plaster casts. This child's acetabulae could not be considered absolutely normal by roentgenographic examination until it was 11/2 years old.

In determining the proper time for discontinuing conservative treatment, one must remember that the shape of the femoral head as well as the acetabular socket is governed by the function

of the two bones acting in apposition against each other. The primary difficulty in the dislocated hip is in the growth of the acetabulum. The shape of the head, the author believes, is secondary to this. In some cases the acetabulum will not develop normally even though the head is applied correctly into the socket. The defective development center of the acetabulum is too abnormal to permit this. The femoral head, therefore, takes on the shape of the socket and not vice versa. There is no question, however, that the apposition of the two bones in their proper relationship to each other does seem to make the acetabulum develop a more nearly normal contour. Consequently, if an tabulum fails to develop normally when the bones have been properly apposed, operation should be considered necessary. The tissues which prevent the proper apposition of the bones -such as the capsule, excessive ligamentum teres, etc.—can be removed from within the socket. If necessary, the cartilage of the acetabulum itself can be gouged out a little to permit a firm socketing of the femoral head. Even the femoral head itself can be shaved down slightly without too great a risk of destroying its epiphyseal growth center. When this is done, the acetabulum is seen many times to develop normally although previously it had not been progressing satisfactorily under conservative measures. If operation is postponed too long, the altered shape of the femoral head no longer influences a proper development of the acetabulum, and by the same token, the altered shape of the acetabulum will not properly de-

There are four criteria which should determine the session of conservative therapy: (1) the use of too much tension at the time of reduction; (2) inadequate socketing of the head into the acetabulum in the postreduction roent-genogram; (3) the slipping out of the femoral head from the acetabular socket either while the child is encased in the plaster spica or at the time when the plaster spica is changed in the succeeding months; and (4) failure to develop a constantly deeper acetabular socket in the monthly check by roentgenogram.

velop the femoral head.

Gills has shown that the conservative treatment, or bloodless reduction of dislocated hips, gives satisfactory results in only about one-third of his cases. He has made careful observations on these cases and has followed them well into the ten-year period of treatment. Some have been followed as long as twenty years. He demonstrates that the acetabular socket does not develop to a normal shape in even the satisfactory cases until about five years from the date of the bloodless reduction. In two-thirds of the

cases the socket never develops properly following conservative treatment. It is true that most of his cases were not treated in the first weeks of life. Most of the children were treated when they were under 3 years of age, at a time when the dislocation is usually brought to the parent's attention.

This is a very strong reason for employing the seemingly more radical operative reduction when the hip has been dislocated. It has been the author's experience that when an operative reduction is done the acetabulum develops into a more normal contour very quickly. In Fig. 7 the left hip was first noticed to be dislocated when the child was 6 months old. Open reduction was done at that age. It was noticed at that time that the right hip showed a mild degree of dysplasia. The child was treated following operation with both legs abducted and internally rotated in a plaster spica. When Fig. 7 was made, the child was 13 months old. seven months following open reduction. The left acetabulum is seen to have developed into a perfectly normal hip joint within seven months. The right hip, on the other hand, which was only mildly dysplastic and which was treated by the conservative method, is not so well developed at 13 months as is the left hip which was severely dysplastic. The right hip was in plaster in abduction and internal rotation the same length of time as was the dislocated left hip.

The operation itself is not too difficult a procedure. Through an anterior approach the hip joint is exposed. The capsule is then cut off the rim of the acetabulum from its superior surface along its anterior surface as far medially as its deep surface. If a bottleneck constriction of the capsule exists, this can be liberated so that when the head is then replaced in the socket, no tissue will interpose between the head and the acetabulum. The ligamentum teres is usually elongated, and it folds on itself. When the head is resocketed, this forms an appreciable obstruction to proper apposition of the femoral head against the acetabular socket. It should be removed. It is rarely necessary to gouge out the acetabulum or to shave down the head slightly; however, one should not hesitate to do both of these things in order to obtain firm socketing of the head in the acetabulum. When this has been done, abduction of the leg, with internal rotation usually holds the head firmly in the socket. There is no need to do any plastic tightening of the capsular structures.

The total operative time is brief, and the longest period is occupied in applying the plaster spica after the wound has been closed.

These children stand the operation well, and there is not so much shock from the procedure as there is commonly supposed to be. The operation is usually done under open-drop ether anesthesia. The postoperative care is chiefly concerned with bringing the child back as quickly as possible to its normal food formula. Water is given during the first twelve hours, and the regular formula can be introduced at the end of that time.

At the end of six weeks the second stage of the operation is done. The plaster spica is removed. and osteotomy is performed to correct the anteversion of the femoral neck. The child is then replaced in a plaster spica, and the legs are held in position for a period of about six months from the date of the first operation. The convenience of the plaster spica allows the child to go home to its parents about ten days after each operation and represents a considerable economic saving. The peace of mind of the parents in having their children home is of inestimable value. Six months from the date of the first operation the plaster spica may be removed, and no further care is necessary except periodic check-up roentgenograms. This obviates the need of all orthopaedic appliances and the child may begin normal activity.

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 Hart, Vernon L.: J. Bone & Joint Surg., Oct., 1942, pp. 753-771.

#### Discussion

Dr. Frank N. Potts, Buffalo—Dr. Thompson is to be commended for again bringing to our attention the necessity of the early recognition of congenital dislocation of the hip.

It is to be regretted that this excellent paper was not presented to a group less familiar with this subject than the orthopaedic surgeon. Unfortunately, the orthopaedic surgeon is the last one to see these cases instead of the first. However, it is our duty to constantly bring this subject before the general practitioner and the pediatrician. We know that, in principle, the earlier these cases are diagnosed, the better the opportunity for satisfactory treatment.

I have not had the experience of treating these cases as early as Dr. Thompson has. I can, nevertheless, subscribe in principle to practically everything he has suggested, with the possible exception of a very early open reduction. However, I must state that I cannot criticize that procedure because I am not familiar with it.

I believe the stress placed upon the cases representing potential dislocations is a very valuable contribution.

#### ASSOCIATION FOR RESEARCH IN OPHTHALMOLOGY, INC., TO MEET JUNE 13

The Association for Research in Ophthalmology, Inc., will hold its fourteenth scientific meeting on June 13, 1944, in the Hotel Sherman, Chicago, Ill. The program follows:

"Choline Esters with Mydriatic and Cycloplegic Action," Kenneth C. Swan, M.D., and Norman Gr White, M.S., University Hospital, Iowa City, Iowa.

"The Dissociation of Form and Light Perception in Amblyopia Ex Anopsia." Hermann M. Burian, M.D., and George Wald, Ph.D., Biological Laboratories of Harvard University.

"A Quantitative Test for Measuring Degree of Red-Green Color Deficiency," Louise L. Sloan, Ph.D., AAF School of Aviation Medicine, Randolph Field, Texas.

"A Study of the Pathogenicity of Diphtheroid Bacilli Isolated from the Human Conjunctivae," Charles Weiss, Ph.D., M.D., Isabella H. Perry, M.D., Marion C. Shevky, A.B., Mt. Zion Hospital, San Francisco, California. "Backflow Phenomena in Aqueous Veins of Normal and of Glaucomatous Eyes," K. W. Ascher, M.D.. Department of Ophthalmology, College of Medicine, University of Cincinnati, Cincinnati, Ohio. "Effect of Chemotherapeutic Agents on Cell Di-

Effect of Chemotherapeutic Agents on Cell Division of the Intact and Regenerating Corneal Epithelium Following Burns and Abrasions in the Rat," George K. Smelser, M.D., and V. Ozanics, M.D., Columbia University College of Physicians and Surgeons, New York.

and Surgeons, New York.

"Evaluation of the Use of Penicillin in Military Ophthalmology," John G. Bellows, Major, M.C., Billings General Hospital, Fort Benjamin Harrison, Indiana.

The officers of the Association are Frederick C. Cordes, San Francisco, California, Chairman; Maj. Brittain F. Payne, AAF School of Aviation Medicine, Randolph Field, Texas, secretary of the program; and Dr. Conrad Berens, New York City. acting secretary-treasurer.

# WARTIME PUBLIC HEALTH CONFERENCE

The Executive Board of the American Public Health Association announces its Second Wartime Public Health Conference and Seventy-third Annual Business Meeting in New York City, October 3, 4, and 5, 1944.

Meetings of several related organizations will take place Monday, October 2. Headquarters will be the Hotel Pennsylvania. The scientific program will be devoted to wartime emergency matters as they affect public health.

# TREATMENT OF PNEUMONIA WITH SODIUM SULFAPYRIDINE AND SODIUM SULFATHIAZOLE ADMINISTERED ORALLY

Elmer H. Loughlin, M.D., Richard H. Bennett, M.D., Samuel H. Spitz, M.D., and Mary E. Flanagan, B.S., Brooklyn

MANY reports have been published concerning the comparative efficacy and toxicity of sulfapyridine and sulfathiazole when used in the treatment of pneumonia. Although these studies have included the use of the sodium salts by intravenous administration, nothing has been presented concerning their use when administered orally.

The absorption of sulfapyridine and sulfathiazole from the gastrointestinal tract is irregular and at times inadequate. Because of this inconstancy of absorption which, to a certain extent, is due to their insolubility, satisfactory levels of these substances in the blood, as well as in the tissues, are at times difficult to attain. It is known that the effectiveness of these sulfonamides is partly dependent upon the levels reached in the blood and tissues.

Although sulfapyridine and sulfathiazole are quite insoluble, their respective sodium salts have been found to be freely soluble. Thus, if their absorption from the gastrointestinal tract depends upon solubility, the latter should be absorbed more rapidly and probably more completely.

Barlow and Climenko,¹ in a study of the pharmacology of these sulfonamides, as well as their respective sodium salts, found that sodium sulfapyridine and sodium sulfathiazole were more rapidly absorbed from the gastro-intestinal tract and produced higher blood levels, respectively, than sulfapyridine and sulfathiazole. They also noted that the blood levels were more easily maintained when the sodium salts were administered.

We recently reported studies<sup>2</sup> which we made during three-hour periods following the oral administration of 4-Gm. doses of sulfapyridine, sulfathiazole, and sulfadiazine, alone and with equivalent amounts of sodium bicarbonate, as well as similar administration of their respective sodium salts. We found that the latter were absorbed most quickly and usually produced significantly higher blood levels than did the original sulfonamide compound. We found, too, that the

administration of sodium bicarbonate with sulfapyridine, sulfathiazole, and sulfadiazine increased the absorption of the sulfonamide as evidenced by the blood levels obtained.

Realizing that the sodium salts could be so rapidly absorbed and that, in most cases of pneumonia, it was necessary to obtain optimum blood levels as quickly as possible, preferably without having to resort to intravenous chemotherapy, we decided to investigate the use of sodium sulfapyridine and sodium sulfathiazole when administered exclusively by mouth in the treatment of pneumonia.

#### Method of Study and Management of Cases

The pneumonia cases, which in this report numbered 445, were from the medical services of the Long Island College and Kings County Hospitals in Brooklyn, and were studied during the period beginning December, 1940, and ending in May, 1942. One hundred and seventy-three patients were treated with sodium sulfapyridine and 272 received sodium sulfathiazole. The reason for this great difference in the number of patients in each group was accounted for by the fact that only sodium sulfathiazole was given at the Long Island College Hospital, whereas at the Kings County Hospital patients admitted on alternate days were treated alternately with sodium sulfapyridine or sodium sulfathiazole. By chance, more patients suffering from pneumonia were admitted on days when the sodium sulfathiazole was being administered.

In each case, a history was taken and physical examination made. The clinical diagnosis of pneumonia was confirmed by x-ray examination. The sputum was cultured and typed for pneumococci by the Neufeld method, and the latter was confirmed by mouse inoculation. Blood cultures were taken on admission and subsequently on each day of fever. Studies of the blood and urine were made. Levels of the sulfonamides in the blood were determined daily.

Dosage.—Sodium sulfapyridine and sodium sulfathiazole were administered orally in two initial 2-Gm. doses an hour apart, then in maintenance doses of 1 Gm. every three hours until the temperature had returned to normal for approximately sixty hours. Bicarbonate of soda was not given. No intravenous chemotherapy was employed and none of the patients in this study received supplementary serum therapy.

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 6, 1943.

From the Department of Internal Medicine, Long Island College of Medicine, Brooklyn.

This work was made possible by a grant from the Wintbrop Chemical Company, and the Dr. Frank E. West Fund, established by Miss Elizabeth Frothingham, and the John C. Warren Memorial Fund, established by Dr. Luther F. Warten, in memory of his son.

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All patients were given an adequate amount of fluid to insure a urinary output of 1,000 cc.

#### General Etiology

Of the 173 patients treated with sodium sulfapyridine, pneumonia due to pneumococci occurred in 107, to streptococci in 6, to staphylococci in 2; and in 58, nontypable pneumococci, streptococci, staphylococci, and mouth organisms, some of which were apparently nonpathogenic, were found in the sputum. This latter group we have referred to as pneumonia of undetermined cause, and in the majority of these the response to chemotherapy seemed to indicate that they were of bacterial origin. Virus pneumonia was considered in some of these cases, because of normal leukocyte counts, suggestive history, and physical findings, although no special studies were made to confirm this opinion.

Of the 272 patients who received sodium sulfathiazole, 153 had pneumonia due to pneumococci, 9 due to streptococci, 10 due to staphylococci, and 3 due to Friedlander bacilli. There were 97 cases in which the cause of the pneumonia was indeterminate.

Distribution of Pneumococcal Pneumonias.—In 30 patients with pneumococcal pneumonia who received sodium sulfapyridine, and in 45 of those treated with sodium sulfathiazole, types I, II, and III pneumococci were the causative organisms.

The most frequently encountered types in those cases treated with sodium sulfapyridine were in this order: types VII, III, IV, VI, II, and XIX

In those patients treated with sodium sulfathiazole, the predominant types were in the order: types III, VII, II, VIII, I, XIX, and XIV.

Distribution of Friedlander's Bacillus Pneumonia.—There were three Friedlander bacillus pneumonia cases treated with sodium sulfathiazole. Two were type A and one was type B.

# Analysis of Cases (Table 1)

Age.—Of the 107 patients with pneumococcal pneumonia treated with sodium sulfapyridine, 63 were over 40 years and 2 of these were more than 80 years old. Their average age was 55 years.

Of the 153 patients with pneumococcal pneumonia treated with sodium sulfathiazole, 93 were over 40 years, and of these, 3 were more than 80 years of age. Their average age was 45 years.

Two of the patients with streptococcal and one patient with staphylococcal pneumonia, to whom sodium sulfapyridine was given, were over 40 years; while 5 of the patients with streptococcal and 9 with staphylococcal pneu-

monias treated with sodium sulfathiazole were over 40 years of age. The average ages of these two groups treated with sodium sulfapyridine and sodium sulfathiazole were 39 and 55 years, respectively.

Forty-eight of the patients with pneumonia of indeterminate cause treated with sodium sulfapyridine were over 40 years; while 74 of those treated with sodium sulfathiazole were over 40 years of age; and 2 of them were over 90 years. Their averages were 56 and 55 years, respectively.

Color.—The proportion of white to Negro patients in the pneumococcal pneumonias was 82.2 per cent white to 17.8 per cent Negro in the series treated with sodium sulfapyridine, and 79.0 per cent white to 21.0 per cent Negro in the series treated with sodium sulfathiazole. In the pneumonias of other cause, there were 88.0 per cent white and 12.0 per cent Negroes in the sodium sulfapyridine group and 89.1 per cent white and 10.9 per cent Negroes in the sodium sulfathiazole group.

Severity of Pneumonias.—The severity of the cases was based on duration of infection before institution of chemotherapy, bacteremia, extent of involvement, and antecedent diseases.

Duration.—The average duration of illness before institution of chemotherapy in the cases of pneumococcal pneumonia treated with sodium sulfapyridine and sodium sulfathiazole was eighty hours in each group. In the streptococcal pneumonias treated with sodium sulfapyridine, the average duration of illness was one hundred and forty-three hours; with sodium sulfathiazole, ninety-six hours; in the staphylococcal pneumonias treated with sodium sulfapyridine, one hundred and eight hours, and with sodium sulfathiazole, sixty-eight hours; and in the Friedländer bacillus pneumonias treated with sodium sulfathiazole, sixty-eight hours. While in the pneumonias of indeterminate causation which were treated with sodium sulfapyridine the average duration of illness was forty-one hours, in those treated with sodium sulfathiazole it was one hundred and seventeen hours.

Bacteremia.—Seventeen (15.9 per cent of the patients with pneumococcal pneumonia treated with sodium sulfapyridine had bacteremia. There were 4 cases of type III, 3 cases each of types II and VII, 2 cases each of types I and VIII, and one case each of types V, VII, and XX.

Thirteen (8.5 per cent) of the patients with pneumococcal pneumonia treated with sodium sulfathiazole had bacteremia. There were 3 cases of type I, 2 cases each of types II, VII, and VIII, and one case each of types III, V, XIV, and XX.

None of the patients with streptococcal,

TABLE 2.—ANTECEDENT DISEASES

	with !	Treated Sodium syridine	with !	Treated Sodium thiazole
	Cases	Deaths	Cases	Deaths
Congestive heart failure	21 2	7	45 3	10
a a	3 2	1	7 0	3
Chronic pulmonary dis- ease (pre-existing) Diabetes mellitus Carcinoma	4 3 2	. 1	6 6 3	0 1
Chronic alcoholism Delirium tremens	4 3 2 4 3 6 7 2 0 5	0	6 3 2 0	ò
Tuberculosis Syphilis Acute rheumatic fever	7 2	0 0	6 8 0 2	0 0 0 0 2
Submersion Others	0 5	0	2 26	0 2
Total	64	14	114	18

staphylococcal, or Friedländer bacillus pneumonia had bacteremia.

Pulmonary Involvement,—Twenty-five (23.4 per cent) of the patients with pneumococcal pneumonia treated with sodium sulfapyridine had consolidation in two or more lobes. Of these, 14 had bilateral involvement.

Fifty (32.7 per cent) of the patients with pneumococcal pneumonia treated with sodium sulfathiazole had consolidation in two or more lobes, and of these 17 had bilateral involvement.

Twenty-one (31.9 per cent) of the patients with streptococcal, staphylococcal, and pneumonia of undetermined cause treated with sodium sulfapyridine had consolidation in two or more lobes, and of these, 10 had bilateral involvement. Fifty-nine (49.6 per cent) of the patients with streptococcal, staphylococcal, Friedländer bacillus, and pneumonia of undetermined cause treated with sodium sulfathiazole had consolidation in two or more lobes. Thirty-seven of these had bilateral involvement.

Antecedent Diseases (Table 2).—Thirty-eight (35.4 per cent) of the patients with pneumococcal pneumonia treated with sodium sulfapyridine and 56 (36.6 per cent) of those treated with sodium sulfathiazole had antecedent diseases. Twenty-four (36.4 per cent) of the patients with streptococcal, staphylococcal, and indeterminate pneumonia treated with sodium sulfapyridine, and 55 (46.2 per cent) of those treated with sodium sulfathiazole had antecedent diseases.

Included among the antecedent diseases were such conditions as congestive heart failure, acute coronary occlusion, generalized arteriosclerosis and senility, cirrhosis of the liver, chronic pulmonary diseases such as bronchiectasis and asthma, diabetes, carcinoma of the intestinal tract and lung, chronic alcoholism,

delirium tremens, pulmonary tuberculosis, syphilis, acute rheumatic fever, submersion, bulbar palsy with respiratory paralysis, and injuries, which included one case of fracture of the jaw.

#### Results (Table 3)

Recovered Cases.—In the pneumococcal cases the temperature fell to normal in an average of fifty hours after treatment with sodium sulfapyridine and in an average of fifty-six hours after treatment with sodium sulfathiazole. In the streptococcal cases treated with sodium sulfapyridine, the temperature became normal in an average of sixty-one hours; and in those treated with sodium sulfathiazole in an average of one hundred and fourteen hours. The temperature became normal in an average of thirty-six hours in the staphylococcal pneumonias treated with sodium sulfapyridine and in one hundred and thirty-seven hours in those treated with sodium sulfathiazole. In the cases of indeterminate cause treated with sodium sulfapyridine the temperature fell to normal in an average of forty-eight hours, while in those treated with sodium sulfathiazole it returned to normal in an average of seventy-two hours. In the Friedländer bacillus pneumonia cases the crisis occurred in an average of seventy-four hours.

In those patients with bacteremia who recovered, the blood stream was sterilized within twenty-four to forty-eight hours after therapy was begun.

Complications.—Suppurative complications, of which empyema was the only one, were infrequent. One case of type XVI pneumococcal pneumonia treated with sodium sulfapyridine was complicated by empyema, and 2 cases of type II pneumococcal pneumonia treated with sodium sulfathiazole were complicated by empyema.

Seven patients with pneumococcal pneumonia in which sodium sulfapyridine was used developed sterile nonpurulent pleural effusions which absorbed spontaneously, and 7 patients with pneumococcal pneumonia in which sodium sulfathiazole was used developed sterile nonpurulent pleural effusions, which also were absorbed spontaneously.

In the cases of streptococcal pneumonia treated with sodium sulfapyridine, empyema developed once. None occurred in those treated with sodium sulfathiazole.

Neither of the staphylococcal cases treated with sodium sulfapyridine developed empyema. In the staphylococcal cases treated with sodium sulfathiazole, one case was complicated by empyema and another by a nonpurulent pleural effusion.

In one case of Friedlander bacillus type A

TABLE 3 .- TREATMENT WITH SULFONAMIDES.

			Sodiu	n Sulfa	pyridi	ne				-Sodi	um Su	lathiaz	ole	
	Cases	0000	9	cessful		Fatalit	y	Cases	0000	<b>2</b>	ecssful 13	,	-Fatality	
	Number of C	Crisis—Hours After First Dose	Suppurativo Complications	Averago Successful Doso-Grams	Number	Gross Percentage	Corrected Percentage	Number of C	Crisis—Hours After First Doso	Suppurative Complications	Avorago Suce Doso-Grams	Number	Gross Percentago	Corrected Percentage
Pneumococcus Streptococcus Staphylococcus Indeterminate Friedländer bacillus	107 6 2 58	50 61 36 53	1 0 0	36 43 29 40	8 0 8	8.3 0.0 0.0 15.5	0.0 6 9	153 9 10 97	56 114 137 72	2 0 1 0	42 37 31 38	11 0 0 14	7.2 0.0 0.0 14.4	1.8 6.2
Type A Type B Total	0 0 173	::	::	::	::	:: 	<i>:::</i>	$\frac{\frac{2}{1}}{272}$	74	0	52	0	100.0	ó.:ó

pneumonia treated with sodium sulfathiazole, a sterile nonpurulent effusion was found. There were four sterile nonpurulent effusions in the cases of pneumonia of indeterminate cause treated with sodium sulfathiazole.

Fatalities.—In the group of cases of pneumococcal pneumonia treated with sodium sulfapyridine, death occurred in 9. The fatality rate was 8.3 per cent. Eleven patients with pneumococcal pneumonia treated with sodium sulfathiazole died. The fatality rate was 7.2 per cent. None of the patients with streptococcal pneumonia in either group died. None of the staphylococcal pneumonia patients treated with sodium sulfapyridine or sodium sulfathiazole died. Both patients with type A Friedländer bacillus pneumonia treated with sodium sulfathiazole recovered, but the patient with type B Friedländer bacillus pneumonia treated with sodium sulfathiazole died.

Nine of the patients with pneumonia of undetermined cause and treated with sodium sulfapyridine died; their fatality rate was 15.5 per cent; 14, or 14.4 per cent, of those with pneumonia of indeterminate cause treated with sodium sulfathiazole died.

Analysis of Fatal Cases (Tables 4 and 5).—Of the 9 patients with pneumococcal pneumonia treated with sodium sulfapyridine who died, 7 had bacteremia. Three of the 9 patients died within twenty-four hours after institution of chemotherapy. In 2 of these cases, and in 6 others, there were severe antecedent diseases which were complicated by terminal pneumonia. The fatality rate including all deaths was 8.3 per cent. However, when the cases of death within twenty-four hours and those with severe antecedent diseases were excluded, the fatality rate was 0.

Of the 11 patients with pneumococcal pneumonia treated with sodium sulfathiazole who died, 3 had bacteremia. None of the patients

died within twenty-four hours after beginning chemotherapy. In 8 of the cases, pneumonia as the terminal condition complicated severe antecedent diseases. The gross fatality rate with all the deaths included was 7.2%. The corrected fatality rate, with those deaths attributed chiefly to the primary antecedent diseases, was 1.8 per cent.

In the one case of Friedländer bacillus type B pneumonia treated with sodium sulfathiazole in which death occurred, pneumonia complicated diabetes and femoral thrombophlebitis.

Of the patients with pneumonia of indeterminate etiology who were treated with sodium sulfapyridine, 9 died. One expired within twenty-four hours after institution of chemotherapy. This patient, as well as 4 others, had antecedent disease conditions to which the cause of death reasonably could have been attributed, and in whom pneumonia was apparently the terminal condition. The gross fatality rate of this group was 15.5 per cent; the corrected fatality rate, 6.9 per cent.

In 2 of 14 fatal cases of pneumonia of indeterminate cause treated with sodium sulfathiazole, death occurred within twenty-four hours after institution of chemotherapy, and in these 2 cases, as well as in 5 others, there were severe antecedent disease conditions complicated by pneumonia. The uncorrected fatality rate, including all deaths, was 14.4 per cent, but when those cases in which death occurred within twenty-four hours or apparently was due to the antecedent condition complicated by pneumonia were excluded, the fatality rate was 6.2 per cent.

Toxic Reactions (Table 6).—Toxic reactions, with the exception of nausea and vomiting, which occurred, respectively, in 19.1 per cent and 8.1 per cent of the patients treated with sodium sulfapyridine and sodium sulfathiazole, were uncommon.

TABLE 2 .- ANTECEDENT DISEASES

	with i	Treated Sodium Syridine	with	Treated Sodium thiazolo
	Cases	Deaths	Cases	Deaths
Congestive heart failure	21 2	7	45 3	10
0	3 2	1	7 0	3
ease (pre-existing) Diabetes mellitus Carcinoma Chronic alcoholism Delirium tremens Tuberculosis Syphilis Acute rheumatic fever Submersion Others	4324367205	· 00 00 11 10 00 00 00	6632068026 26	0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Total	64	14	114	18

staphylococcal, or Friedländer bacillus pneumonia had bacteremia.

Pulmonary Involvement.—Twenty-five (23.4) per cent) of the patients with pneumococcal pneumonia treated with sodium sulfapyridine had consolidation in two or more lobes. these, 14 had bilateral involvement.

Fifty (32.7 per cent) of the patients with pneumococcal pneumonia treated with sodium sulfathiazole had consolidation in two or more lobes, and of these 17 had bilateral involvement.

Twenty-one (31.9 per cent) of the patients with streptococcal, staphylococcal, and pneumonia of undetermined cause treated with sodium sulfapyridine had consolidation in two or more lobes, and of these, 10 had bilateral involvement. Fifty-nine (49.6 per cent) of the patients with streptococcal, staphylococcal, Friedländer bacillus, and pneumonia of undetermined cause treated with sodium sulfathiazole had consolidation in two or more lobes. Thirty-seven of these had bilateral involvement.

Antecedent Diseases (Table 2).—Thirty-eight (35.4 per cent) of the patients with pneumococcal pneumonia treated with sodium sulfapyridine and 56 (36.6 per cent) of those treated with sodium sulfathiazole had antecedent dis-Twenty-four (36.4 per cent) of the patients with streptococcal, staphylococcal, and indeterminate pneumonia treated with sodium sulfapyridine, and 55 (46.2 per cent) of those treated with sodium sulfathiazole had antecedent diseases.

Included among the antecedent diseases were such conditions as congestive heart failure, acute coronary occlusion, generalized arteriosclerosis and senility, cirrhosis of the liver, chronic pulmonary diseases such as bronchiectasis and asthma, diabetes, carcinoma of the intestinal tract and lung, chronic alcoholism,

delirium tremens, pulmonary tuberculosis, syphilis, acute rheumatic fever, submersion, bulbar palsy with respiratory paralysis, and injuries. which included one case of fracture of the isw.

#### Results (Table 3)

Recovered Cases.—In the pneumococcal cases the temperature fell to normal in an average of fifty hours after treatment with sodium sulfapyridine and in an average of fifty-six hours after treatment with sodium sulfathiazole. In the streptococcal cases treated with sodium sulfapyridine, the temperature became normal in an average of sixty-one hours; and in those treated with sodium sulfathiazole in an average of one hundred and fourteen hours. The temperature became normal in an average of thirty-six hours in the staphylococcal pneumonias treated with sodium sulfapyridine and in one hundred and thirty-seven hours in those treated with sodium sulfathiazole. In the cases of indeterminate cause treated with sodium sulfapyridine the temperature fell to normal in an average of forty-eight hours, while in those treated with sodium sulfathiazole it returned to normal in an average of seventy-two hours. In the Friedländer bacillus pneumonia cases the crisis occurred in an average of seventy-four hours.

In those patients with bacteremia who recovered, the blood stream was sterilized within twenty-four to forty-eight hours after therapy

was begun.

Complications.—Suppurative complications, of which empyema was the only one, were infrequent. One case of type XVI pneumococcal pneumonia treated with sodium sulfapyridine was complicated by empyema, and 2 cases of type II pneumococcal pneumonia treated with sodium sulfathiazole were complicated by em-

Seven patients with pneumococcal pneumonia in which sodium sulfapyridine was used developed sterile nonpurulent pleural effusions which absorbed spontaneously, and 7 patients with pneumococcal pneumonia in which sodium sulfathiazole was used developed sterile nonpurulent pleural effusions, which also were ab-

sorbed spontaneously.

In the cases of streptococcal pneumonia treated with sodium sulfapyridine, empyema developed once. None occurred in those treated with sodium sulfathiazole.

Neither of the staphylococcal cases freated with sodium sulfapyridine developed empyema. In the staphylococcal cases treated with sodium sulfathiazole, one case was complicated by empyema and another by a nonpurulent pleural effusion.

In one case of Friedlander bacillus type A

#### TABLE 5 -- ANALYSIS OF DEATHS

# Cases Treated with Sodium Sulfathiazole Pneumococcal

						1 neumococcus			
Type I	N Sex	A Haco	8 AK0	H Lobes Involved	f Buotoronia	Antecedent Diseases	& Pirst Dosc—Hours	Total Dose-	Comments Died on 2nd day
11	-	-	59	2	0	Carcinoma of lung	96	32	Temperature normal, 48 hours Died 8 days later
***	M	u.	54	1	+	Rheumatic heart disease, con- gestive failure	144	87	Died on 14th day—congestive failure
III	 11	B.	65	2	0	Arteriosclerotic heart disease, congestive failure	168	27	Temperature normal, 72 hours Died on 4th day
IV	F	M.	69	1	0	Arteriosclerotic heart disease, congestive failure	48	15	Died within 48 hours—congestive failure
VIII	M	$\mu$	41 70	1 2	0 +	Arterio-clerotic heart disease,	48 48	13 33	Died on 2nd day Died on 10th day—congestive failure
M	М	W	72	2	0	congestive failure Arteriosclerotic heart disease,	140	21	Died at 72 hours-congestive failure
MIII	M	W	74	1	0	congestive failure Arteriosclerotic heart disease,	96	69	Died on 8th day-congestive failure
XIX	И	W	59	1	0	congestive failure Bulbar palsy, respiratory par-	8	19	Died on 3rd day
YXIII	М	11	77	2	0	alysis, lung abscess Acute coronary occlusion	192	68	Died on 16th day-coronary occlu-
						Cases Treated with Sodium Su	lfathsaz	ole	
						Indeterminate	.,	0.0	
	М	W	77	2	0	Senility, generalized arterio- sclerosis	200	13	Died on 2nd day
	F	W	65 67	1	0	Hypertensive heart disease, congestive failure	48 48	18 7	Died on 3rd day Died within 24 hours
	M	W	67	1	0	· ·	Sev	68	Died on 11th day
	M	W	67	1	G	Arteriosclerotic heart disease, congestive failure	wks	8	Died within 24 hours
	M F	W.	66 77	1	0	Diabetes, acidosis, cystitis, arteriosclerotic heart disease, congestive failure	48 48	50 23	Died on 9th day  Died 4th day—congestive failure  Developed erythema multiforme which apparently did not con- tribute to death
	M	W	49 75	2 2	0	Senility, generalized arterio-	744 144	34 52	Died on 6th day Temperature normal, 72 hours Currence 14 days later Died
	$_{M}^{M}$	W	59 86	1 2	0	Senulty, generalized arterio-	168 95	10 33	Died on 2nd day Died on 5th day
	M M	$M_{\star}$	52 24	1 2	0	Mongolian idiot	48 48	21 27	Died on 3rd day Temperature 100 F, 48 hours
	M	W	91	2	0	Semility, arteriosclerotic heart disease, congestive failure	24	20	Died 4th day Died on 3rd day
	M	w	66	1	0	Friedlander's Bacillu Diabetes mellitus femoral thrombophlebitis	s 96	21	Died on 3rd day

Sodium sulfapyridine and sodium sulfathiazole have produced less toxic reactions than sulfapyridine and sulfathiazole, especially less nausea and vomiting. The incidence of renal reactions was lower in the present series than in any reported series of cases treated with sulfapyridine, or sulfathiazole, and especially sulfadiazine.

#### Summary

1. Four hundred and forty-five cases of pneumonia, in which 173 and 272 were treated with sodium sulfapyridine and sodium sulfathiazole, respectively, have been analyzed.

2. The gross and corrected fatality rates of 107 cases of pneumococcal pneumonia treated with sodium sulfapyridine were, respectively, 8.4 per cent and 0 per cent, and of the 153 treated with sodium sulfathiazole, 8.2 per cent and 1.8 per cent. None of the patients with streptococcal or staphylococcal pneumonia died. In the groups with indeterminate pneumonia, the majority of which were of bacterial origin, the gross fatality rates of those treated with sodium sulfapyridine and sodium sulfathiazole were, respectively, 15.5 per cent and 14.4 per cent.

TABLE 4 .- ANALYSIS OF DEATHS

	==	===	===		===		====	===	
						Cases Treated with Sodium Sulfa	pyridine		
						Pneumococcal			
		0		Lobes Involved	Bacteremís		First Dose—Hours After Onset	Total Dose— Grams	
	Sex	Race	99	ορ	act		fte	ofe	•
Туре		H	₹:			Antecedent Diseases	2-5	₩0	Comments
I	M	W	66	4	+	Arteriosclerotic heart disease, congestive failure, tuberculosis	96	13	Died on 2nd day-congestive failure
111	M	W	46	1 2	+	Tuberculosis	48	9	Died within 24 hours
	M	W	86	2	+	Arteriosclerotic heart disease, senility, congestive failure	24	69	Died on 11th day—congestive failure
	M	W	54	1	+	411111111	72	8	Died within 24 hours
v	M	W	79	1	+	Arteriosclerotic heart disease, congestive failure, senility	120	51	Died on 8th day—congestive failure
VI	M	w	50	1	+	Acute alcoholism, bronchiectasis with lung abscess	96	32	Died on 5th day
XIX	M	W	61	2	0	Malnutrition, senility, general- ized arteriosclerosis	. 72	33	Temperature 101 F. in 24 hours Died on 5th day
$\mathbf{x}\mathbf{x}$	M	W	65	1	+	Chronic alcoholism, delirium tre-	•••	6	Died within 24 hours
XXIX	M	W	45	5	0	mens Arteriosclerotic heart disease, congestive failure	76	19	Died on 3rd day—congestive failure
						Cases Treated with Sodium Sulfa	pyridine		
				•		Indeterminate			
	M	w	54	2 2	0	Diabetes mellitus	168	51	Died on 12th day
	M	w	66	2	0	Arterioscleratic heart disease.	168 144	$\frac{22}{14}$	Died on 4th day Died on 2nd day—cerebral embol-
	M	W	68	2	0	Arteriosclerotic heart disease, congestive failure			ism
	M	w	58	2	0	Arteriosclerotic heart disease, acute coronary occlusion	96	44	Died on 7th day—coronary oc-
	M	w	81	2	0	Senility, senile psychosis, arterio- sclerotic heart disease	•••	19	Died on 3rd day
	F	w	45	. 2	0	Rheumatic heart disease, conges- tive failure	96	7	Died within 24 hours-congestive failure
	M	w	78	1	0		48	53	Died on 9th day Died on 3rd day
	M	W	48	2	0	Cirrhosis of liver	96	20 26	Died on 4th day
	M	W	73	1	0		00	20	

Dermatitis occurred in 1.7 per cent and 4.4 per cent, respectively, in the cases treated with sodium sulfapyridine and sodium sulfathiazole. Two of the latter group also had fever. Most of the instances of dermatitis, with the exception of one patient treated with sodium sulfathiazole who developed a severe erythema multiforme with ulceration, were manifested as macular and maculopapular rashes or simple erythema. In the patient with erythema multiforme, death was apparently not contributed to by the development of this condition.

Drug fever occurred in 2.3 per cent of the patients treated with sodium sulfapyridine and in 2.3 per cent treated with sodium sulfathiazole.

In two of the cases, or 0.7 per cent, in which sodium sulfathiazole was used, conjunctivitis developed.

Microscopic hematuria occurred in 1.7 per cent of those treated with sodium sulfapyridine, and 0.1 per cent of those treated with sodium sulfathiazole. In one case 0.4 per cent of those treated with sodium sulfathiazole, gross hematuria developed twenty-four hours after the temperature had returned to normal, at which time chemotherapy was discontinued without unto-

ward effect. There were no instances of renal calculi, renal insufficiency, anemia, leukopenia, or liver damage attributable to chemotherapy with either sodium sulfapyridine or sodium sulfathiazole.

#### Comment

Sulfonamide therapy should ideally combine maximum therapeutic effect and a minimum degree of toxicity. New preparations must be compared with sulfapyridine and sulfathiazole, as well as with sulfadiazine, which are, all highly efficient drugs. These drugs, however produce toxic effects which at times preclude their use or make it necessary to discontinue them during the period of illness in which their use is still required. We feel that, from an analysis of the 173 and the 272 cases of pneumonia, in which sodium sulfapyridine and sodium sulfathiazole were, respectively, employed, these drugs are about equally effective in the treatment of pneumococcal pneumonia, as well as pneumonia from other causes. They appear to us to be comparable to sulfapyridine, sulfathiazole, and sulfadiazine in the treatment of patients with pneumonia of at least average severity.

#### THE CAUSE OF PSORIASIS

ARTHUR E. GOLDFARB, M.D., New York City

Since 1857, when Ferdinand von Hebra¹ first defined the criteria which characterize the disease psoriasis as we know it today, much thought has been applied to the problem of discovering its cause. While many theories of causation have been advanced, the ones that have received the widest credence may be listed as follows:

- 1. Hereditary
- 2. Neurogenic
- 3. Parasitic
- 4. Metabolic
  - (a) High blood fat
  - (b) High blood protein
- 5. Diathetic, or the arthritism of the French School
- 1. Hereditary Theory.—It is generally conceded that there is in some families a greater tendency to the occurrence of psoriasis in its members. However, this disposition to develop psoriasis cannot be related to any functional or anatomic defect. Thus one arrives at the conclusion that explaining the cause of psoriasis vulgaris by assuming the existence of an hereditary defect alone provides neither an accurate functional estimate nor a precise anatomic concept.
- 2. Neurogenic Theory.—This theory was first advanced by the Salpêtrière School² and was based on the occurrence of individual cases following mental trauma. It has been attempted to connect such mental shock with the pathologic picture of psoriasis by claiming that the trauma stimulates the vasodilator fibers of the sympathetic nervous system, thus explaining the vasodilatation which is a part of the pathologic picture of psoriasis. Certainly, other than the relation clinically between mental trauma and the initial occurrence of psoriasis, there is no experimental or other evidence to support this theory.
- 3. Parasitic Theory.—The parasitic theory was first advanced by Lang, who had thought he had isolated the causative organism which he called the "epidermidophyton." Subsequent

workers have failed to confirm his work. Further doubt is thrown on this theory by Schamberg, who observed the disease in both individuals of married couples only twice in about three hundred families. On the basis of his experiments Schamberg arrives at this conclusion: "I do not believe that any living person possesses the scientific data that would warrant his dogmatically affirming or denying the truth of either the parasitic or the metabolic hypothesis."

4. Metabolic Theories .- These are two in number. The first was advanced by Gruetz and Buerger, 5.6 who claimed to have found high fat levels in the blood. They also claimed that the reaction to tolerance tests with large amounts of olive oil and cholesterin differed in patients suffering from psoriasis from that in normal persons. Schaaf and Obtulowicz,7 who repeated the work of Gruetz and Buerger by means of unimpeachable methods of known accuracy, conclude that neither with respect to the concentrations of the various lipoid fractions in the fasting serums nor with respect to the alterations undergone by the concentrations of these various fractions following the resorption of the test drink was it possible to detect any differences between psoriatic and nonpsoriatic individuals. Lipoid metabolism is normal also in psoriatics.

The second theory as to a metabolic cause was advanced by Schamberg and Ringer.<sup>3</sup> They showed that during the active stage of the disease a high protein diet brings about a spread of the eruption and that, conversely, a low protein diet is followed by improvement when no local remedies are applied. It should be noted that to achieve this result several weeks on a diet containing no more than 5 Gm. of nitrogen daily is required. To achieve such a level the individual has to live chiefly on vegetables. Suffice it to say that in other hands reliance on this low protein diet has not been attended by similar success.

5. Diathetic Theory.—All the theories of causation of psoriasis except the parasitic might be conveniently classified in this category, since they are at best only efforts to explain or elucidate a disposition to develop the disease. Greater light was thrown on this theory by the work of Koebner, who advanced as his theory of the causation a peculiar disposition of the psoriatic that is located in the cutaneous organ itself, which mostly can be proved to be hereditary, but which sometimes is also acquired, and

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Aided by a grant from the California Fruit Growers Exchange.

TABLE 6 .- TOXIC REACTIONS

	So Sulfa	dium pyridine	Sulfa Sulfa	dium thiazole
Nausea and vomiting Dermatitis Drug fever	Num- ber 33 3 4	Percent- age 19.1 1.7 2.3	Num- ber 22 12 6	Percent- age 8.1 4.4 2.3
Hematuria Microscopic Gross Conjunctivitis	3 0 0	1.7	3 1 2	1.1 0.4 0.7

The corrected fatality rates were, respectively, 6.9 per cent and 6.2 per cent.

- 3. Sodium sulfapyridine and sodium sulfathiazole were used in the same manner. Supplementary intravenous chemotherapy and supplementary serum therapy were not employed in any cases.
- 4. The administration of both sodium sulfapyridine and sodium sulfathiazole was accompanied by infrequent toxic effects, which, with one exception of gross hematuria occurring after

the crisis, did not necessitate discontinuance of chemotherapy. Hematopoietic, leukopenic, and other renal reactions were not found in any cases in either series. Dermatitis, which in only one case was severe, appeared in about the same incidence as has been found with the administration of sulfapyridine and sulfathiazole.\*

\* ACKNOWLEDGMENTS: The members of the staffs of the hospitals named, notably Drs. Tasker Howard, George H. Roberts, Henry Wolfer, Joseph G. Terrence, Bernhard A. Fedde, and Harry Fried, permitted us to treat patients in their services with sodium sulfapyridine and sodium sulfathiazole (oral).

We wish to express our appreciation to Drs. William W. Carty, Heyes Petersen, John M. Edson, Saul Rotter, and to Misses Anne Smith and Margaret Hubbard for the clinical and technical assistance which they rendered. In addition, we wish to thank Sidney M. Karlton for his cooperation throughout this study.

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#### TULAREMIA FROM NEW YORK STATE RABBITS

Two cases of tularemia, contracted from rabbits killed in Suffolk County, suggest that this disease may be more common among wild rodents in this state than is commonly supposed.

According to a comprehensive report of the two cases, submitted recently by Dr. I. J. Tartakow, Nassau County Department of Health, a party of four hunters shot twenty-five wild cottontail rabbits near Quogue, Suffolk County, on November 4, 1943. The game was divided among three members of the party, two of whom skinned and cleaned several of the animals for their own consumption and distributed the remainder among their friends. Both men remained in good health and none of the other persons who skinned, handled, or ate their rabbits became ill.

The third huntsman divided nine rabbits, which were his share of the kill, among his two brothers and two of his employees. All skinned and cleaned their own rabbits and none suffered any illness with the exception of one of the brothers, a garage owner, forty-eight years of age. This man dressed his two rabbits on the evening of November 4. His wife soaked them in salt water overnight and the following morning cut up and pot-roasted one in a pressure cooker at 320 F. for twenty minutes. The cooked meat was eaten by the man and his wife, his 13-year-old son, and his father-in-law.

A day or two prior to handling the rabbits, the garage owner had broken the skin of his right thumb and left index finger while doing some mechanical work. On the morning of November 6, he suffered severe headache, nausea, weakness, fever, and chills, and the wounds on his fingers appeared infected. On November 7, the lymph glands in both axillae became swollen and tender. There was moderate ulceration of the infected digital wounds with progressive enlargement of the axillary glands. Suppuration of the glands on the left side necessitated incision and drainage on December 23 and 27. Two subcutaneous nodules developed on the right hand and one on the left hand near the digital lesions.

Specimens of blood serum from the patient on December 8 and December 27 were found to agglutinate B. tularense in dilutions of 1:20 and 1:160, respectively, establishing the diagnosis. The other members of the family all escaped illness.

On November 6, the garage owner gave the second rabbit, already skinned and cleaned, to a laborer whom he had engaged to make repairs on his house. On his arrival home, the workman unwrapped the rabbit, placed it on a dish, and put it in the refrigerator. Later that evening, he held the animal in his hands long enough to show to his brother-in-law and then replaced it in the refrigerator.

law and then replaced it in the refrigerator.

On the morning of November 8, he developed severe headache, chills, and fever. A wound on his right thumb, which he had cut about a week before and which had become infected, appeared more inflamed. A few days later the glands in the right axilla became enlarged and sensitive, and a tender subcutaneous nodule appeared at the base of the right thumb. He was too ill to eat any of the rabbit which was cooked on the afternoon of November 8.

A specimen of the patient's blood was reported on January 3 as giving characteristic agglutination with B. tularense in a 1:1,200 dilution of the serum. None of the other members of this household, consisting of the patient's sister, her husband, and two children, all of whom ate portions of the cooked meat, were affected.

It may be assumed that both cases were contracted from the second rabbit, which was handled by each of the two patients. In the second instance, infection took place, apparently, during the brief contact which occurred when the workman unwrapped and placed the rabbit in the refrigerator and later when he showed it to his brother-in-law. It is significant that neither the wife of the first patient nor the sister of the second, both of whom handled the raw meat of this animal, became ill. Neither had any abrasions or lacerations.

Health News, Feb. 28, 1944

TABLE 1.-PSORIABIS STUDY-COMPILATION

		1.4	BLE IFSORIAS	SIS STUDI—COMPLIATION	
Case No.	Initials	Treated with	Duration of Disease (Years)	Durstion of Treatment	Result
1 2 3 6 7	B. G.	Citrin	15	4/9/40- 1/6/41 •	Improved
2	J. A.	Citrin	25	1/23/40- 5/5/42	Improved
3	B. G.	Citrin	25	1 23/40~ 5/12/42	Fluctuating-improved
6	J. R.	Citrin	5-6 months	3/26/40- 3/27/41 11/19/40- 3/4/41	Completely cleared
7	F. G.	Citrin	15	11/19/40- 3/4/41	No change
10	<b>ት ሮ</b>	Citrin	3	3/21/40- 9/15/42	Improved
33	T. C. Y. C.	Citrin	2-3	3/26/40- 2/18/41	Improved
12	L. B.	Citrin	27	3/12,40- 1/29/42	Improved
12 13	J M	Citrin	45	3/12/40~ 1/9/41	Worse
14	î.C.	Citrin	40	3/12/40- 1/9/41 3/26/40- 4/4/40	Improved
15	$\widetilde{\mathbf{G}}$ , $\widetilde{\mathbf{S}}$ .	Citrin	28	3/7/40- 4/30/40	No change
16	I. C. G. s. J. M.	Citrin	28 5 2	3/26/40-12/10/40	No change
19	W. N.	Control	ž	3/26/40- 5/14/40	Improved
19 21 22 23 24 27 28	W. N. M. D.	Control	19	3/28/40~ 8/4/42	Worse
22	S. C. L. F. S. M.	Control	5	3/28/40- 5/7/40	Improved
23	L. F.	Citrin	35	4/2/40- 5/14/42	Improved
24	S. M.	Control	3	4/4040- 5/28/40	Worse
27	L. G.	Citrin	30	6/1/40- 5/14/42	Improved
28 *	R. C.	Control	10	4/9/40~ 5/7/40	Worse
		Citrin		5/7/A0_10/20/A0	Improved
29	T. L.	Control	5	4/9/40- 1/27/42	Worse
29 32 33	J. M.	Citrin	ġ	4/11/40- 5/9/40	No change
33	J. M. E. B.	Citrin	6	4/9/40- 1/27/42 4/11/40- 5/9/40 4/11/40- 5/9/40 4/16/40-10/28/41	No change
34	G. L.	Citrin	8-9	4/16/40~10/28/41	Improved
34 35 36	E. S.	Control	2	5/9/40-10/29/40	Worse
36	G. L. E. S. S. B. J. H. L.	Citrin	17	4/18/40- 1/14/40	Worse
39	J. H. L.	Citrin	12	4/25/40- 5/29/40	Improved
40	1.5	Citrin	4-5	4/25/40- 6/18/40	Improved
42	M. D. M. F.	Control	45	5/2/40- 8/13/41 5/14-40-10/31/40	Worse
44 46	M. F.	Citrin	6	5/14-40-10/31/40	Improved
47	р. н.	Citrin	_7	5/14/40- 5/29/40	Worse
47 48 50	r. G.	Citrin	17	5/16/40-12/28/41	Improved
50	5. r.	Citrin	2-3 months	6/4/40- 3/6/41	Improved
51	F. G. S. F. H. S. C. J.	Citrin	20 25–30	6/25/40- 5/15/41 7/2/40- 2/2/41	Improved Improved
· · ·	U. J.	Citrin	coontinued treatm	nent, recurrence 7/31/41 7/23/40- 4/24/41 8/13/40- 6/26/41	1mproved
53 56	J. P.	Citrin	7	7/23/40- 4/24/41	Improved
56	Ċ. Ď.	Control	าก	8/13/40- 6/26/41	No change
57	ጥር	Control	7 26	6/20-42- 3/17/42	No change—worse
64	Ã. Ř.	Citrin	35	10/29/40~ 2/24/42	No change
57 64 65	Â. B. J. Q. C. G.	Citrín	35 23 3	10/29/40- 9/4/41	Improved
66	C. G.	Citrin	3	10/20/40- 2/24/42	Improved
67	M. W.	Control	12	11/7/40- 3/17/42	Inconstant treatment-worse
72	M. L.	Control	12	12/3/40- 5/14/42	Improved in summer-worse
73	R. O.	Citrin	12 12 2	11/7/40- 3/17/42 12/3/40- 5/14/42 12/5/40- 4/17/41 5/8/41- 9/18/41	Improved
76	M.S.	Citrin	8	5/8/41- 9/18/41	Improved
77	L. V.	Citrin	1	5/13/41- 5/14/42	Improved
ងប	N. B.	Control	10	6/26/41- 4/30/42	No change
67 72 73 76 77 80 81 85	N. B. C. G. B. Z. S. W. M. G.	Citrin	16 17	7/3/41- 5/14/42	Improved
00 00	B. Z.	Citrin	17	9/23/41- 5/14/42	No change
01	S. W.	Citrin	10	10/15/41- 4/30/42	No change
95	M. G.	Citrin	12 12 15	10/15/41- 3/12/42 10/15-41- 4/16/42 10/20-41- 5/12/42 10/21/41- 5/14/42	No change
จีรี	A. S. D. B.	Citrin	12	10/20-41- 5/12/42	Improved
90 91 92 93 94 95	N. L.	Citrin	2	10/3/41-11/21/41	Improved
95	. (2.3)	Control Control	10	102/4/41- 5/5/42	Worse No change
96	J. v	Citrin	^ <u>~</u>	102/4/41- 5/12/42	Improved
98	A. T.	Citrin	$ ilde{f 2}$	11/19/41- 5/14/49	No change
100	J. V. A. T. I. T. M. F.	Citrin	2 2 28 15	11/18/41- 5/12/42	Improved
101	M. F.	Citrin	15	11/21/41- 5/14/42	No change
104	J. Р. М. Ż.	Citrin	10	12/2/41~ 5/12/42	Improved
111	M. Z.	Control	30	12/1/41- 5/12/42	Worse
113 121	A. M. H. F.	Control	15	11/18/11- 5/12/42 11/21/41- 5/12/42 11/21/41- 5/14/42 12/2/41- 5/12/42 12/1/41- 5/12/42 1/15/52- 5/14/42	Worse
141	H. F.	Citrin	6	3/12/42- 5/12/42	No change

the mixture. The liquid obtained in this way was then combined with the lemon juice for palatability. Forty lemons prepared in this manner usually yielded a gallon of vitamin concentrate. Four ounces (120 cc.) were administered to the patients as a daily dose. Sugar and water may be added for palatability.

The results of treatment are shown in Tables 1 and 2. This is a compilation of data for patients under observation since the inception of the study. In all, 62 cases are reported, of which 17 are control cases that were treated with two teaspoonfuls of milk sugar daily by mouth, and petrolatum locally. Of 17 control cases 3

improved, 3 showed no change, and 11 became worse during the period of observation.

In the treated group there were 45 patients. Of the 45 treated patients 30 improved, 12 showed no change, and 3 became worse.

TABLE 2

Cases	Improvement	No Change	Worse
Control 17	3	3	11
Treated 45	30	1 <u>ž</u>	*3
Total 62	33	15	14

which remains latent for years, and reacts to the most diverse internal and local stimuli, always with that chronic inflammatory cutaneous phenomenon, just as other organs manifest their vulnerability by other forms of transudation as a reaction to the most diverse occasional causes. He further states, in the same paper, that the therapy should be not only symptomatic, but should also be directed toward a decrease of the vulnerability of the entire cutaneous organ. These conclusions he based on both experimental and clinical grounds.

Wutzdorff<sup>10</sup>, writing later under the title of Contribution to the Etiology of Psoriasis Vulgaris concludes that psoriasis is based on a cutaneous disposition, which does not mean dyscrasia, but a peculiar cutaneous quality of reacting to external stimuli (mechanical, chemical, thermal) by developing lesions that are characteristic of psoriasis in response to stimuli that, when of the same intensity, would not have any effect on the skin of normal persons or would only cause a transitory inflammation.

If one examines the mechanism of reaction to mild injury, as elaborated by Lewis, 11 one finds that it consists of three phases, preceded by the liberation in the skin of histamine or a histamine-like substance. These are: (1) capillary dilatation; (2) arteriolar dilatation occasioned by a local nerve reflex; (3) an increase in the permeability of the capillaries, resulting in a wheal, which in normal persons may last for thirty minutes and is followed by a period of eight to ten minutes during which the area stimulated is refractory to the further action of histamine.

Thus, injury to the skin culminates in vascular dilatation and an increase in permeability. This is of particular interest in the light of Wertheim's description of the condition of the capillary loops in the papillae in psoriasis (quoted by Kromayer): in psoriasis the capillary vessels in the pathologically altered papillae look as if a dilated hose were slackly bending and winding as it continues its way to the tip of the papilla in such a manner that it seems almost completely to fill the stroma as well in profile as in the preparations of transverse sections. 12

Kromayer<sup>12</sup> concludes that the slight increase in the permeability of the capillaries, incident to their dilatation, produces a hyperalimentation of the epidermis which in turn results in the pathologically altered cornification of psoriasis.

Lewis<sup>11</sup> found that skin which had recently been subjected to whealing either by histamine, mechanical stroke, or other forms of stimulation, became irresponsive to subsequent stimulation. A repetition of the injury failed to produce a wheal. This irresponsiveness pertained only to the wheal; the occurrence of the flare, due to vascular dilatation, was not affected. Recovery from this refractoriness, in normal persons, begins in five to ten minutes and is uninterrupted, though a varying period elapses before full whealing is again obtained. Paterson, 13 using the same technic as Lewis, found that the cutaneous vessels were refractory to histamine during the eruptive and chronic stages of psoriasis. The return of the reaction was associated with improvement and preceded the disappearance of the lesions.

Using the same stimulus—i.e., mechanical stroke, necessary to produce the triple response in normal persons—one may produce in psoriatics the Koebner phenomenon. At least one may successfully accomplish this in 30 to 40 per cent of the persons affected with psoriasis. According to Lipschuetz (quoted by Bizzozero<sup>14</sup>) the following are the characteristics of artificial psoriasis:

1. Factitious psoriasis produced by excoriation reaches its climax when the papillary layer has been injured; it is of medium intensity if only the malpighian layer has been cut into; it is absent, on the other hand, if the injury is limited to the horny layer.

2. It may appear on the trunk as well as on the extremities.

3. It is absent in areas which have been previously treated with chrysarobin or pyrogallic acid

4. It is not exclusively limited to patients in whom the disease is in an eruptive stage, but may be provoked in patients who show only some isolated spots.

5. It becomes evident eight to ten days following trauma and occupies exactly and exclusively the area of the excoriations which have caused it.

Because of the relationship between mild injury and psoriasis and between mild injury to the skin and increases in capillary permeability, it was thought of interest to investigate the effect or citrin, so-called "vitamin P", on the course of psoriasis, since "vitamin P" has the effect of restoring pathologically increased capillary permeability (Szent-Gyorgyi and coworkers). The preparation of this substance used was citrin lemonade, made as follows:

Lemons of large size, 6 to 8 ounces each, were cut in half, and their juice extracted. The remaining rinds were then ground up in a meat chopper and the resulting mash was placed in an enamel-lined kettle and covered with water. This mixture was allowed to stand at room temperature for twenty-four to thirty-six hours. It was then placed in a basket centrifuge, where the liquid was separated from the solid portion of

TABLE 1 .- PSORIASIS STUDY-COMPILATION

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1	B. G.	Citrin	15	4/9/40- 1/6/41	Improved
2	J. A.	Citrin	25	1/23/40- 5/5/42	Improved
1 2 3 6 7	B. G.	Citrin	25	1, 23/40- 5/12/42	Fluctuating—improved
€	J. R.	Citrin	5-6 months	3/26/40- 3/27/41	Completely cleared
70	F. G. T. C.	Citrin	15	11/19/40- 3/4/41	No change
10 11	v. c.	Citrin	2-3	3/21/40- 9/15/42 3/26/40- 2/18/41	Improved
12	L. B.	Citrin	2-8 27	3/12/40- 1/29/42	Improved Improved
iã	J. M.	Citrin Citrin	45	3/12/40- 1/9/41	Worse
14	ĭ. Ċ.	Citrin	40	3/26/40- 4/4/40	Improved
15	G. S.	Citrin	28	3/7/40- 4/30/40	No change
16	J. M.	Citrin	5 2	3/26/40-12/10/40	No change
19	W. N.	Control	2	3/26/40- 5/14/40	Improved
21 22 23 24	M. D.	Control	19	3/28/40- 8/4/42 3/28/40- 5/7/40	Worse
22	ş. ç.	Control	25	3/28/40- 5/1/40 4/2/40- 5/14/42	Improved Improved
24	L. F. S. M.	Citrin	35 3	4/4040- 5/28/40	Worse
27	L. G.	Control Citrin	30	6/1/40~ 5/14/42	Improved
27 28 -	R. C.	Control	10	4/9/40~ 5/7/40	Worse
	0.	Citrîn	40	5/7/40-10/29/40 4/9/40- 1/27/42	Improved
29	T. L.	Control	5	4/9/40- 1/27/42	Worse
29 32 33	J. M.	Citrin	9	4/11/40- 5/9/40	No change
33	E.B.	Citrin	6	4/11/40- 5/9/40	No change
34 35	G. L. E. S. S. B.	Citrin	8-9	4/16/40~10/28/41	Improved
36	E. D.	Control	2 17	5/9/40-10/29/40	Worse Worse
39	7 B. 1	Citrin Citrin	12	4/18/40- 1/14/40 4/25/40- 5/29/40 4/25/40- 6/18/40	Improved
40	J. H. L. F. S.	Citrin	4-5	4/25/40~ 6/18/40	Improved
42	M. D.	Control	45	5/2/40~ 8/13/41	Worse
44	M. F.	Citrin	6	5/14-40-10/31/40	Improved
46	D. H.	Citrin	7	5/14/40- 5/29/40	Worse
47	F. G.	Citrin	17	5/16/40-12/28/41	Improved
48 50	S. F.	Citrin	2-3 months	6/4/40- 3/6/41	Improved Improved
51	H. S. C. J.	Citrin Citrin	20	7/2/40- 2/2/41	Improved
		Cithii	continued treatm	6/25/40- 5/15/41 7/2/40- 2/2/41 ent, recurrence 7/31/41	Improved
53	J. P. C. D. T. C.	Citrin	7	7/23/40- 4/24/41	Improved
56	C.D.	Control	10	8/13/40~ 6/26/41	No change
57 64 65	T. C.	Control '	26	6/20-42- 3/17/42	No changeworse
04 65	А. В.	Citrin	35	10/29/40- 2/24/42	No change
66	Ā. B. J. Q. C. G.	Citrin	23 3	10/29/40~ 9/4/41	Improved Improved
67	й, ж.	Citrin Control	ن 19	10/29/40~ 9/4/41 10/29/40~ 2/24/42 11/7/40~ 3/17/42	Inconstant treatmentworse
72	M. L.	Control	12	12/3/40- 5/14/42	Improved in summer-worse
73	R. Ö.	Citrin	2	12/5/40- 4/17/41	Improved
67 72 73 76 77 80	3 T C'	Citrin	12 12 2 8	5/9/41_ 0/19/41	Improved
77	L. V.	Citrin	1	5/13/41- 5/14/42	Improved
81	L. v. N. B. C. G. B. Z. S. W.	Control	10	5/13/41- 5/14/42 6/26/41- 4/30/42 7/3/41- 5/14/42 9/23/41- 5/14/42	No change
85	Ç. G.	Citrin	16 17	0/22/41- 5/14/42	Improved
90	8. W	Citrin Citrin	10	10/15/41- 4/30/42	No change No change
91	М. С.	Citrin	10 12 15 2	10/15-41- 4/16/42	No change
92	A. S.	Citrin	$1\bar{2}$	10/20-41- 5/12/42	Improved
93	D. B. N. L.	Citrin	15	10/21/41- 5/14/42	Improved
91 92 93 94 95	N. L.	Control	.2	10/3/41-11/21/41	Worse
96 30	Ç. M. J. V.	Control	10	102/4/41- 5/5/42 102/4/41- 5/12/42	No change
98	J. V. A. T.	Citrin	2 2 28	102/4/41- 5/12/42 11/12/41- 5/14/42	Improved No change
100	î. r.	Citrin Citrin	28	11/18/41- 5/12/42	Improved
101	M. F.	Citrin	15	11/21/41- 5/14/42	No change
104	J. P. M. Z.	Citrin	10	12/2/41- 5/12/42	Improved
111	M.Z.	Control	30	12/1/41- 5/12/42	Worse
121	Ą. M.	Control	15	1/15/52- 5/14/42	Worse
***	H. F.	Citrin	6	3/12/42- 5/12/42	No change

the mixture. The liquid obtained in this way was then combined with the lemon juice for palatability. Forty lemons prepared in this manner usually yielded a gallon of vitamin concentrate. Four ounces (120 cc.) were administered to the patients as a daily dose. Sugar and water may be added for palatability.

The results of treatment are shown in Tables 1 and 2. This is a compilation of data for patients under observation since the inception of the study. In all, 62 cases are reported, of which 17 are control cases that were treated with two teaspoonfuls of milk sugar daily by mouth, and petrolatum locally. Of 17 control cases 3

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TABLE 2

Cases	Improvement	No Change	Worse
Control 17	3	3	11
Treated 45	30	12	-î
m . 1			
Total 62	33	15	14

The improvement which has been noted consists of diminution in the infiltration of lesions and a lessening of the scaling. In two of the patients there was complete disappearance of all

#### Summary

Five theories as to the causes of psoriasis are considered.

A relationship has been shown between psoriasis and injury and between injury and increases in capillary permeability. Citrin, so-called "vitamin P," which decreases capillary permeability, has been used in the treatment of this disease with the following results:

Of 45 cases treated 30 improved, 12 showed no change, and 3 became worse. In a group of 17 control cases under treatment with milk sugar orally and petrolatum locally, treated at the same time 3 improved, 3 showed no change, and 11 became worse.

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#### IS ASPIRIN A DANGEROUS DRUG?

Aspirin, or acetylsalicylic acid, has been used in enormous quantities throughout most of the world for some forty-five years. Many persons seem to have a mild idiosyncrasy to this drug or to the other salicylates and consequently avoid its use; the vast majority take it with apparent impunity. Although toxic effects have been discussed in these columns, severe reactions are certainly rare in relation to the enormous quantities consumed. Deaths from aspirin have been reported; these appear to have been

more frequent in England than in this country. New evidence indicates that aspirin and the other salicylates produce a physiologic effect which cannot be ignored. About 1941, Huebner and Link of the Wisconsin Agricultural Experimental Station discovered that dicumarol when given by mouth induces a shortage of prothrombin in the blood. They found also that dicumarol could be qualitatively degraded to salicylic acid. Later, Link and his coworkers tested the action of salicylic acid it-When single doses of salicylic acid were given to rats kept on an artificial diet which was low in vitamin K, a decrease of the prothrombin in the blood occurred. Also if the salicylic acid was given over a long period, hemorrhages resulted; if vitamin K was administered the hypoprothrombinemia did not develop. More recently other investigators found that salicylic acid would act in the same way on human beings and that when vitamin K was administered simultaneously with the salicylic acid the fall in prothrombin levels was prevented. The

administration of vitamin K after the production of hemorrhage by dicumarol or salicylic acid, however, is of little use.

These observations offer a plausible explanation of such events as the report of a British physician in 1943 concerning the development of nosebleed in 3 cases after taking large doses of aspirin or the fre-quent occurrence of bleeding in patients with rheumatic fever who are receiving large doses of salicylates. Such observations suggest that patients who are required to take salicylates in large quantities for a long time should also receive prophylactic doses of vitamin K. When, however, hemorrhages occur after the taking of dicumarol or the salicylates, vitamin K is not likely to be effective; then proper treatment may include the giving of a blood transfusion.

The mass of evidence so far available indicates that aspirin and the salicylates are among the least toxic of active pharmacopeial preparations. This status, however, should not be interpreted as an excuse for failure to recognize hazards connected with their abuse or even under certain circumstances of established usage. Their ability to produce hemorrhage in some cases appears to be counteracted by early administration of vitamin K. It does not now seem necessary to administer vitamin does not now seem necessary to administer vitamin K to all patients receiving salicylates; those who are to receive large doses for a long time may appropriately be given vitamin K.-J.A.M.A., March 18, 1944

#### TRIALS OF A TAXPAYER

A Chicago paper recently carried this story: An elderly woman equipped with a mechanical hearing device and an income-tax form waited in line for four hours in the Oak Park offices of the Internal Revenue Bureau, only to shout helplessly, when she finally obtained the ear of a deputy: "I

can't hear a word you're saying. I've stood in line so long my battery has run down." She went to buy a new battery, with the observation that in equity and justice it should be a deductible item in the protein and the Hard of her return .- Bull., N.Y. League for the Hard of Hearing

# THE IMPORTANCE OF LATENT PARENCHYMAL DISEASE OF THE LIVER IN SURGERY

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TN MANY cases of disease of the liver, there is L evidence to show that some form of elusive or obscure hepatic parenchymal injury had preceded the onset of any clinically recognizable illness. That the disease had previously been symptomless is undoubtedly due to the fact that there was an insidious onset, that the episodes had been comparatively mild, that the continued development of the disease and/or lesion had been very slow and very prolonged, and that the symptomatology had been of the kind which is easily dismissed or disregarded in the vicissitudes of daily life. In rather uncommon instances, this has been demonstrated by tests of hepatic function; in more common instances it was visualized at exploratory operations, done for apparently other indications, by gross anatomic changes indicating the preceding damage or injury or its secondary effects.

In clinical practice such a breakdown can occur and be recognizable in persons whose hepatic structure and function had previously been normal, or, perhaps more probably, in persons in whom some hepatic damage had already existed as a multiple incident and in whom, in between these episodes, a partial or complete anatomic and functional recovery had taken

place.

From the factual knowledge summarized in a previous communication it must be concluded that:

The number of apparent and/or apparently unrelated potential causes must be large and must include the following: chemical bodies introduced from without the body or produced within the body as a normal or abnormal metabolic event and, in either case, either not neutralized or not promptly excreted; bacterial infections; and tissue toxins of various origin and chemical structure produced by destroyed or degenerating tissue (as after trauma or burns).

2. It is probable that in the vast majority of cases some combination of agents is the essential provocative cause. The nature of this combination is not as clear as we should like it to be. The most common participating agent is alcohol. It seems that ethyl alcohol may play a role either by itself, or because of other contaminating alcohol (amyl alcohol), or because of some of the chemical by-products which are formed in its production or in its later storage in charred barrels. Later in the development of these injuries, an important factor is inanition seen in the physical examination of the patient and demonstrated in the study of the blood serum proteins. The observable hypoproteinemia is frequently excessive. With it there is demonstrable diminution in vitamin B<sub>1</sub>. The undernourishment has been thought by some to be an important agent in the develop-

ment of these parenchymal changes.

It seems that bacteriologic infection may be a powerful adjuvant to any of the other agents which can produce injury in the liver. Either the previous injury lessens the resisting power of the liver and so facilitates infection; or infection inhibits certain protective powers of the liver so that injurious substances are not destroyed or sufficiently neutralized before hepatic injury can be produced; or, if the latter be already present, infection facilitates its further progression. In this regard intercurrent infection of the gallbladder and/or the biliary duct system becomes a most important item. It may furnish the necessary stimulus to a hastened further advance of the already existing hepatic damage. Contrariwise, it may itself be much facilitated by the already existing hepatic damage.

- 3. Sensitization of the liver occurs because of the repetitions of these episodes, opportunity for which is sufficiently abundant in everyday Therefore the liver becomes increasingly susceptible to the repeated toxic damage. This helps materially to explain why some patients go through an overpowering fulminant course to death even after a first injury while others show less severe or mild symptoms and eventually recover, or possibly have no perceptible symptoms. A vicious circle is sometimes thus produced.
- 4. The differences in duration and in the manner of the development of this clinical and pathologic complex, in the symptoms, in the suddenness and the dramatic effect of the clinical manifestations, and in the rapid culmination in death, or in the more protracted course with apparent temporary improvement but, nevertheless, slow progression to the terminal stages hereinafter to be discussed, or in the repetition of mild episodes with incomplete restoration to the normal in the remission periods and the passage into the terminal picture hereinafter to be discussed, seem to have important relations to the size of the dose of the causative agent, to the number and frequency of its repetitions,

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to the time limit in which the latter is delivered, to any intercurrent duct obstruction, and to various forms of preceding sensitization of the body to diverse toxic bodies. When the toxicity of the causative agent is sufficiently powerful and the latter is applied with sufficient intensity, the resulting hepatic injury is sufficiently large so that immediate death may occur. illustrated clinically in the fatal acute cases of yellow atrophy of the liver or in those dramatic fatal cases of the hepatorenal syndrome which sometimes occur in the postoperative period after lightly undertaken operations upon the gallbladder and biliary tract for comparatively simple conditions apparently devoid of any undue risk and danger.

## Hépatitis .

Some degree of hepatitis is always present, The forms of yellow atrophy are the maximum potential ultimate manifestations to which any and all of these destructive changes may lead. The initial stage of hepatitis may be clinically most acute and promptly fatal. The fatal cases not only include the cases of acute yellow atrophy but also instances of a less violently destructive process which have been clinically segregated under the generic term of "toxic cirrhosis." The differentiation is, perhaps, an academic one. These are, perhaps, the only cases in which a single episode of liver injury occurs and repititions of the injury are prevented by the immediate fatal outcome. An equally acute onset with an almost equally

An equally acute onset with an almost equally marked clinical symptomatology may rarely be followed by an apparently complete clinical recovery. In the usual run of cases, this does not necessarily imply an equally complete anatomic healing and restoration of physiologic function. From this easily recognizable severe form of injury and disease, all gradations occur clinically, down to those in which evidence of disease is at a minimum and is sometimes even imperceptible to the clinician.

In other words, the liver damage may be so mild and ephemeral as to be unrecognizable unless one is on the lookout. In the latter cases, indications of the presence of disease are to be found only in changes of liver function or in the appearance of otherwise unexplainable jaundice. Any degree of jaundice occurring under such conditions is an indication of hepatitis even in the absence of any laboratory data.

In the fibrotic liver (chronic interstitial hepatitis-cirrhosis), the consensus of opinion (Kretz, Kelly, McIndoe, McNee, Ghon, Moon, Laennec, Mann, McCallum) is that the continued or repeated action of these agents either alone or, more especially, in combination with

other factors results in the production of repeated episodes of acute cellular degenerations with insufficient regeneration of the hepatic parenchyma in the intervening periods; that as a consequence of this there follows a chronic diffuse hepatitis indicated by further degenerations and necroses due sometimes to other mechanical factors, and to insufficient and increasingly futile attempts at regeneration of the parenchyma; and that, finally a productive proliferation of interstitial fibrous tissue occurs. Because of this the entire parenchyma becomes totally renewed several times, and this results in a complete architectural transformation of the parenchyma. This alteration or destruction of architectural pattern seems to be the distinguishing characteristic of the Laennec cirrhotic lesion in the liver as opposed to any other form of chronic productive connective tissue change, instances of which are very common, as pointed out in a previous communication.

Numerous experiments have shown that the liver has an extraordinary capacity for regeneration. Even after the removal or destruction of large portions of the liver, regeneration is accomplished by the formations of new lobules of normal size, shape, structure, character, and vascular supply, as shown by repeated biopsies and by laboratory tests of hepatic function. The architectural pattern in such regenerated livers is many times indistinguishable from that of a normal liver and no fibrotic changes follow.

This type of change and result usually can only follow a single relatively mild injury. It cannot and does not, however, follow a continued or repeated injury of a similar or, perhaps, of a dissimilar nature. Repetition, or continuation, of the injury causes a chronic diffuse hepatic inflammation the essential features of which are degeneration and destruction of hepatic cells and subsequent attempts at repair marked by regeneration of cells from those remaining and by proliferation of connective tissue. Nevertheless, the conception that this is always synonymous with cirrhosis, as ordinarily understood, is somewhat erroneous even if it be so generally accepted.

It is very difficult to establish or even estimate the degrees of anatomic restoration or functional recuperation either after a single or even after repeated parenchymal injury. And there is some evidence to show that in the present state of our knowledge, one may not lightly escape the thought that perhaps no complete anatomic and functional recovery ever occurs even after a single episode of injury or disease. At any rate, it seems certain that any more or less successful attempt at restoration, both anatomic

and physiologic, to the normal after a first injury becomes progressively less effective after subsequent and repeated episodes.

After repeated episodes—and this repetition of episodes is undoubtedly the rule-latent anatomic changes and mild disturbances of physiology are present. The possibility of such increasing latent damage in structure or function which may gradually progress over many years until easily recognizable clinically, and until hepatic insufficiency eventually supervenes, is shown by those rare instances of hepatic fibrosis (cirrhosis) in which a story of one or more previous episodes can be elicited. Such observations, including the clinical and laboratory (biopsy) demonstration of the repetitions of acute and subacute episodes, have been reported by Bloomfield, 10 Wilson and Goodpasture, 11 Connor,12 Abramson,12 Krarup and Roholm,14 and Whiteacre and Fang. 15 Similarly, they have been able to demonstrate the latent periods in between the succeeding flare-ups until terminal exitus. Bloomfield points out the analogy between these long-drawn-out liver cases to the course of glomerular nephritis (Addis16).

Such latent hepatic disease is of most importance in other manifestations of disease of the liver or of the gallbladder and biliary tract. From the point of view of the surgeon, they are of practical importance as the cause of unexpected events and complications after operation upon the latter. When it is visualized as an unforeseen lesion during the laparotomy, the surgeon must be able to integrate the liver lesion with the other clinical manifestations in order to make an accurate judgment of the causal relation of the one to the other, in order to be able to make reliable prognostications, and in order to be able to advise any available precautionary measures against untoward complications or events in the immediate postoperative period or for the possible arrest of the process and the resultant prolongation of life.

Latent hepatic disease is of great importance to the obstetrician in that it may act as an underlying disability upon which obstetric yellow atrophy, toxic hepatitis, and some forms of toxemia of pregnancy are built.

To both internist and surgeon, latent hepatic disease forms, very probably, the underlying nidus or the state of lessoned resistance upon which the demonstrable lesions which complicate thyrotoxicosis are built.

Lastly, latent hepatic disease is, to my mind, undoubtedly the precursor of those cases of hepatorenal symptoms and lesions or "liver death" about which so much has been said in recent years (Wilensky<sup>17</sup>). The phenomena

are not entirely confined to operative cases of disease of the gallbladder and biliary tract but occur also in a miscellaneous collection of other conditions in all of which they are totally unforeseen. Some illustrative examples are the following:

Case 1.—A child aged 9 months was admitted to the hospital with a typical picture of acute intestinal obstruction of approximately twenty-four hours' duration, due to an acute intussusception. The child was immediately operated on, and during the operation the intussusception was easily reduced. During the next eighteen hours the temperature rose to above 106 F.; tremendously toxic symptoms developed, and the child died. Postmortem examination showed negligible changes in the liver and some slight degenerative changes in the kidney. There was no time for chemical, bacteriologic, or other laboratory studies before death occurred.

In the gallbladder and biliary tract cases the operative findings immediately establish the fact of the previous liver injury and disease and that all is not well. Events and complications are then more or less anticipated in the postoperative period and even later. In the other cases, when, as very often happens, exploration is not done, or is insufficiently done, there is no inkling of the underlying disturbance or of its potential subsequent events and no objective evidence of the true condition is available until a postmortem examination is made.

It is instructive to compare the phenomena in cases of liver death with similar phenomena in those of outstanding infection:

Case 2.—A young man was admitted to the hospital with the diagnosis of "chronic appendicitis," and an appendectomy was done. During the next thirty-six hours his temperature rose to well over 106 F.; the patient showed marked signs of toxicity, and death occurred. Postmortem examinations showed peritonitis, distinctive yet in an early stage of development, and there were inconspicuous changes in the hepatic and renal cells.

Case 8.—Another young man was admitted with chronic osteomyelitis of the femur, and osteotomy was done. Prior to operation there was no fever, and there was no reason to think that bacteremia was present. Nevertheless, operation was followed immediately by a progressive rise in temperature, by increasing signs of general infection, by a growth of bacteria in the blood culture, and by death within seventy-two hours. Postmortem examination showed the usual changes incident to a general infection but no special morphologic changes in the liver or the kidney.

The resemblance to cases of liver death are more than incidental, since infection is a powerful destructive agent upon the liver parenchyma. The remarkable thing is that these effects are not observed more often.

The explanation and differentiation of the clinical phenomena are difficult when one compares them with cases of postoperative acute cholangitis. Many patients for whom acute cholangitis is a new postoperative condition or an extension and exaggeration of a preceding lesion show high fever and marked toxicity immediately after operation. Death within twenty-four to thirty-six hours after operation is common. The blood cultivation is frequently positive and the pathologic picture in the liver shows acute inflammatory foci around the ducts. Degeneration of the parenchymal cells and miliary abscesses are common.

#### Surgical Considerations

In practical surgery, the importance of latent hepatic parenchymal disease lies in the degree of any functional incapacity which it causes. This varies a good deal, and though usually there is, there is not always an exact correspondence between anatomic change and physiologic disturbance. Nor is there usually any indication of the amount of reserve which is still potentially present in the liver.

The best and most competent idea of all of this is obtained from an integration of the clinically observed facts with some laboratory determinations. On the clinical side a much greater degree of invisible pathologic change is indicated when jaundice is present. On the laboratory side the following considerations are valuable.

Hypoproteinemia.—Hypoproteinemia resulting from the inability of the liver cell to synthesize plasma proteins despite an adequate intake of precursor material is a pathologic disturbance of liver function caused by intrinsic hepatic parenchymal disease or degeneration. This is found most demonstrably in the yellow atrophies and in the portal type of cirrhoses and less often in other liver conditions. In the experience of Davis and Getzoff, 18 this has always been associated with a general reduction of liver function of a rather marked grade as shown by the intravenous hippuric acid test.

The conclusion seems inevitable that all cases faced with abdominal operations, biliary tract and gallbladder cases as well as others, should be investigated with this point in mind. Any demonstrable hypoproteinemia should be corrected. If it is apparently uncorrectible, the deficiency should be regarded as indicating a very serious stage of disease. Second, the advantages of a high protein diet are obvious, prophylactically as well as therapeutically. In this regard vitamin B seems an important accessory, as shown in the work of Gyorgy and Goldblatt. 19

Blood-Clotting Function.—In the presence of sufficient hepatic parenchymal disease, the normal blood clotting function becomes disturbed and this is most marked in long-continue jaundice. When there is reason to suspect latenthepatic disease, even in the absence of jaundice and especially when it is present; the blood clotting function should be investigated and corrected as far as possible.

Renal Changes (Hepatorenal Syndrome).—It the later stages of latent hepatic disease, and certainly when this becomes clinically apparent renal changes become demonstrable and the change from the normal can be used clinically as a rough measure of the amount of hepatic dysfunction.

These three factors, when taken in conjunction with the clinical manifestations, should give a very good indication of the amount of hepatic functional damage, of the possible available reserve, of the ability of the patient to withstand an operative insult, and of the probable prognosis.

In practical surgery the macroscopic evidences of latent hepatic disease may not be visible during the operative exploration. When changes are visible, they indicate that the latent disease is in an advanced stage. Nevertheless, recovery can occur from the immediate form of illness and from the operative procedure. The visible evidence of latent disease should, however, endow us with caution in making any prognostic statement, as it does not preclude the possibility of recrudescence or advance of the process to a further irreversible stage. In addition, it must be remembered that any hepatic fibrosis may by itself be productive of secondary effects equally as bad, if not worse, than the original injury.

In any event, it must be understood that the chances are more than good, that there will be further symptoms, and that the patient will not be entirely well; and that there may be further serious disease eventually culminating fatally.

On the other hand, when the evidences of previous disease are so demonstrable, unexpected and frequently serious and even fatal events follow in the immediate postoperative period, or even shortly thereafter after the discharge of the patient from the hospital, which is only understandable because of the preceding liver injury and damage.

Precautionary Preoperative Measures.—In some instances it is possible to suspect before operation that previous liver injury had taken place, as a consequence of which there are interstitial changes in the liver. When these are suspected and possibly corroborated by some of the tests of liver function, it becomes necessary to revise any previously held opinion regarding the risks

of operation. The suspected changes might very well form serious objections to the performance of any operation of an elective nature. And in compulsory operations they might indicate a greater effort in the exercise of precautionary preoperative measures for the prevention of any postoperative hemorrhage, in the employment of a different form of anesthesia, or in a change in the usual operative technic or procedure, which might help to obviate or lessen the immediate effects of the operative trauma, or the occurrence of effects of any resultant postoperative complications.

Practically speaking, the most important precautionary measure which is available is encompassed under the general provision of an improvement in the general nutrition. abundant supply of carbohydrate must be combined with an adequate supply of protein. The latter is especially important in order to counteract the hypoproteinemia which is present. For the latter purpose transfusion of whole blood or of plasma, or the enteral or parenteral use of any of the various aminoids preparations, in addition to adequate protein intake, are necessary. From the latest available studies it seems that an adequate supply of vitamin B is also most essential.

# Summary

Many agents, either alone or in combination, cause insidious degenerative changes in the hepatic parenchyma with various forms of hepatitis which are eventually followed by fibrotic change. These latent conditions may be unexpectedly exposed to view during operation or discovered thereafter. Their importance, surgically, lies in the amount of the resultant liver damage. The best idea of the latter is found in clinical observation integrated with demonstrable grades

of hypoproteinemia, demonstrable interference with the blood-clotting function, and with demonstrable renal changes, combined with the ordinary tests of renal and hepatic function. These latent hepatic parenchymal and interstitial changes may determine an unexpected postoperative fatality, or may appear later as a continuation or recrudescence of the previous lesion. When, rarely, the liver disease can be suspected and, perhaps, proved before operation, it might form a strong objection to the performance of any elective operation; or would compel, in compulsory operations, preoperative precautionary measures to obviate or lessen, if possible, any postoperative complication or events.

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# TUBERCULOSIS CASE-FINDING

It is fully realized that it is essential for our future to win this war, and the finding of a case of tuber-culosis, with the prevention of its further spread, is as definite an act toward winning the war as the destruction of an enemy plane or tank. This is especially true of our industrially employed. A case of tuberculosis in a worker not only removes an important element in production but also necessitates the dissipation of the energies of many others to re-tore him to health. These people can and should be engaged in the more fruitful work of winning this war. The physicians, nurses, social workers, educators, attendants, dietitians, and all others directly or indirectly related to the care of a tuberculosis case will find that they have only a minimal

amount of time to care for tuberculosis. Although by case-finding their load will be greater, the removal of an open case from industry will, in the long run. prevent the increased rise in tuberculosis morbidity and mortality which we greatly fear. The industrial case, therefore, is more important than just any case of tuberculosis.

When industry and the worker realize the terrible cost in manpower and human suffering that tuberculosis entails and that a method of control is feasible, then case-finding in industry will be more eagerly accepted and may, in fact, be one of the outstanding contributions toward public health that will survive this war.—Irving R. Tabershaw, M.D., in Industrial Medicine, March 1943

# PENTOTHAL SODIUM ANESTHESIA IN MAJOR SURGERY

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N SPITE of earlier experiences with sodium amytal and related barbiturates which were prepared for parenteral use, there were sufficient undesirable reactions from the single dose administrations to cause many to regard with suspicion the intravenous route in general anesthesia. Without doubt, the ideal anesthetic agent may be defined as one which is suited for any type of surgical procedure, and which produces the least physiologic disturbance. It has been observed that pentothal sodium fulfilled this requirement more closely and more constantly than any of the other agents used for general anesthesia. The role of pentothal sodium in minor surgery has been definitely established. In major surgery there is still considerable doubt as to its adequacy. To those who fear the intravenous route and its relatively rapid effect on the patient, it may be stated axiomatically that any inhalation anesthesia produces its effect only after it is absorbed from the respiratory tract into the blood stream. Obviously, intravenous injection accomplishes this result simply and directly.

The belief that pentothal sodium in major surgery should be relegated to the status of a basal anesthetic or supplementary adjunct to another type of anesthesia is not well founded. There are no exact pharmacologic or physiologic standards by which one can foretell the total effect on a patient of a measured amount of the anesthetic used. The individual response of a patient is unfortunately subject to too many variables which in most instances are neither constant nor uniform. It has been shown repeatedly that major surgical operations of a similar nature and severity have been performed on similar age groups and types with a wide difference as to the total dosage of sodium pentothal used in each case. Also of significance is the fact that the total dosage for the operation in some cases was greatly exceeded by the amount administered in other cases before the surgeon could even make his incision. Any agent which requires the constant supplementary effect of other drugs to produce a state of surgical anesthesia is fundamentally inadequate, and in some cases it is an exaggerated, complicated, and dangerous form of preoperative medication.

Pentothal sodium anesthesia is neither basal nor supplementary. It is totally adequate for any type of major surgery. Properly administered according to the individual requirements of

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each case, its use permits delicate and easily varied control of the depth of anesthesia during any phase of the operation. This exactness and simplicity of administration cannot be so easily achieved with any other type of general anesthesia. A prevalent belief which is the basis for much of the objection to the use of intravenous anesthesia in major surgery is that there exists a relatively small margin of safety between the maintenance dose and complete respiratory ar-It' was our observation that very deep anesthesia could be safely achieved and maintained with intravenous sodium pentothal as the sole anesthetic agent, and that this margin is comparatively more safely under the control of the anesthetist. Since 1938 we have used pentothal sodium anesthesia in practically 95 per cent of our major cases, regardless of the basic pathology present, and without too strict attention to the then accepted contraindications for the use of the drug. As a result of this experience a paradoxical conviction gradually evolved. Many of these so-called contraindications apparently became actual indications for the use of the drug.

The systemic effects of pentothal sodium anesthesia have been observed to affect the physiology of the patient very little. The induction period is very rapid. There is no excitement stage. The pulse and blood pressure vary slightly throughout the operation. The respiration becomes somewhat shallow and the rate is lowered. Routine laboratory work, including blood counts, urine analyses, coagulation, and bleeding times, shows no significant changes. No demonstration to date has been made of the exact fate of pentothal sodium in the body. Observations by others have shown that electrocardiographic studies after anesthesia in cases with definite cardiac damage were no different from those before anesthesia. Other than a slight elevation in blood sugar in some cases, no changes occurred in the blood chemistry. No alteration in liver function was noted. It has been shown that repeated administration of pentothal sodium has no apparent effect on the physiology of the usual laboratory animals, and many patients tolerate repeated anesthesias with this drug remarkably well.

#### Method of Administration

One of the most important factors in the induction and maintenance of this anesthesia is the preoperative medication of the patient. For the average adult case, a standard routine is used. The night before operation at the hour of sleep

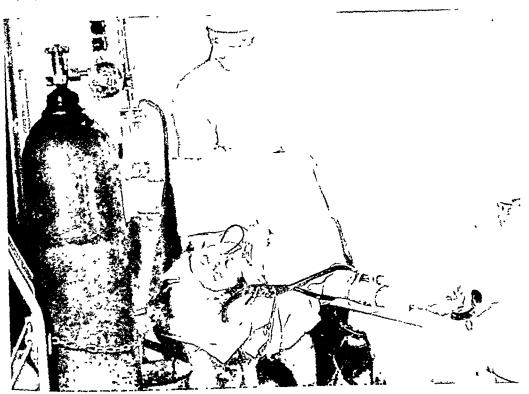


Fig. 1. Photograph illustrating the apparatus used for intravenous pentothal sodium anesthesia in major surgery.

11/2 grains of nembutal are given. Two hours prior to operation this dose is repeated, and the same amount is administered one hour later. One-half hour prior to the operation 1/6 to 1/4 of a grain of morphine sulfate and 1/150 of a grain of scopolamine or atropine are injected hypodermically. This dosage, of course, varies with the age and general condition of the patient. emergency cases only the morphine-scopolamine injection given intramuscularly, or 1/6 to 1/4 of a grain of morphine sulfate intravenously may be used. There have been favorable results in some emergencies with no preliminary medication, but it is believed that this undoubtedly does prolong the induction period. Adequate preoperative medication assures a smoother anesthesia, and diminishes the total amount of pentothal used. The psychic effect on the patient is of unquestionable value. The patient is brought to the operating room with the eyes covered and is usually quite drowsy and unconcerned.

The arm is placed at right angles to the patient and fastened to an arm board. Both arms can be made available in this way, especially if the superficial veins are scarce and ill-defined. A small wisp of cotton is strapped to the patient's nose.

A 5 per cent aqueous solution of sodium pentothal is prepared from a standard ampule containing a gram dose. The practical syringe to use is one with a 20-cc. volume, since this corresponds to the dosage in the ampule and many cases will fall within 5/10 to 1 Gm. total dosage limit. A 20gage needle is excellent, but a larger one can be used if practicable. The solution is injected slowly while the patient counts aloud. After ten to fifteen seconds, when about 6 cc. of the solution has been injected, the patient will stop counting and fall into a condition resembling a deep sleep. There is no excitement stage. The respiration is shallow and is indicated best by the cotton wisp on the nose. The needle is left in the vein with the syringe strapped to the arm. This is the simplest and most reliable technic for subsequent dosage. The surgeon then tests the patient for sensibility by pricking the skin. The nature of the patient's response and the muscle tone must be watched carefully to determine the need for further dosage. The muscle tone is gaged by testing the lower jaw frequently. All this usually takes from twenty seconds to one minute in most cases. The tongue must be carefully watched and a patent airway constantly maintained. Prior to reaching the deeper planes of anesthesia, many patients go through a period of peripheral dilatation which may cause some oozing in the incision. This is transient and causes no real trouble. The eye signs are not too reliable.

It is important at this time to stress again that the dosage of this drug is not constant or fixed for any type of case or individual. Every patient is a law unto himself. Several important facts must be borne in mind.

First, the total dosage method is never to be used, any more than one should give the patient a 4-ounce tumbler of ether or any other anesthetic at the beginning of an operation. anesthetist is always guided by the response of the patient to the initial dose. When the patient has stopped counting he should be careful to give only the amount necessary to bring the patient to, and maintain him at, a desired level of anesthesia. It has been observed during longer operations that after a patient begins to react slightly from the effects of one or more added injections of the drug, it takes much less of the drug to restore him to the original deeper level of anesthesia than it previously required to bring him There is here an apparently significant relationship—namely, as the operation progresses. subsequent dosage becomes less frequent and much less in amount. Operations have been performed which lasted one and one-half to two and one-half hours, during which most of the drug was administered in the first half of the operation.

Second, in any operative case in which pentothal sodium is used it is always wise to have oxygen available, especially if signs of anoxia are present. Ordinarily, it may not be necessary to use oxygen for short operations, but in prolonged instances and in patients who suffer from shock from any cause, the constant administration of oxygen is important. This is particularly so when the anesthesia is maintained at a deep level for a period of time. The importance of proper oxygenation during anesthesia has already been very well established. The use of oxygen with pentothal sodium is so easily accomplished as to make the combination an ideal one for any case.

Third, it has been observed that youtliful, healthy individuals require much more anesthesia for both induction and maintenance than older, debilitated, or emaciated patients. We have also performed similar operations on apparently similar age groups and types with a wide discrepancy as to the total dosage in each case. This emphasizes the need of individualizing every case.

Fourth, immediate postoperative care consists mainly of instructing the nurse to watch the tongue carefully. Morphine, in smaller doses than usual, should be used only after the patient has reacted, to obviate any further respiratory depression. Stimulants such as coramine and picrotoxin have been used by some. These were not proved to be necessary in our experience.

The simplicity of this technic can be readily appreciated. There have been modifications suggested in which specially designed syringes, tubing, and stopcocks are used for the administration of the solution. This apparatus is superfluous. There is still some question in regard to the routine use of a  $2^{1}/_{2}$  per cent solution or a 5 per cent solution. It certainly has proved no more dangerous or difficult to give  $^{1}/_{2}$  to 1 cc. of a 5 per cent solution than 1 to 2 cc. of a  $2^{1}/_{2}$  per cent solution, and in those cases in which more than 1 Gm. is used, there is an obvious complication in the number of syringes employed. No deleterious effects have been observed in the use of a 5 per cent solution in all of our cases.

#### Comment and Discussion

Many of the conditions which formerly were supposed to preclude the use of pentothal sodium anesthesia have not proved to be contraindications in practice. Age is no bar, except in the very young where lack of cooperation and poor superficial veins are distinct handicaps. Hypertensive patients and those with poor cardiac reserve have withstood formidable major surgery with very little disturbance. No difficulty was experienced in cases where there was definite liver and renal pathology. Debilitated and aged patients tolerated this form of anesthesia very well. It seemed that in these cases, and especially in those cases suffering from shock from any cause, this anesthesia has proved to be of distinct benefit. Surgery of the throat involving the respiratory passage may present a definite mechanical hazard. Tonsillectomies have been performed, however, with no serious complications.

The postoperative recovery period in some cases has been prolonged, particularly if the dosage of the drug has exceeded the average amount required for induction and maintenance, and if the operation has been particularly prolonged. The danger of accidental asphyxia is not very great if proper precautions have been observed to maintain a patent airway, and the muscle tone has been restored about the jaw. This can be easily accomplished by the anesthetist in the operating room. In many cases of short duration the patients often react promptly at the close of the operation before they are returned to the ward. This anesthesia is highly satisfactory for the

This anesthesia is highly satisfactory for the surgeon. The simplicity and rapidity of induction is of paramount time-saving importance. The precise control of the anesthetist over the depth of anesthesia because of fractional ad-

ministration is a distinct factor for a comparably greater margin of safety. The relaxation achieved parallels that of spinal anesthesia, and in the upper abdomen is often superior to it. There is no explosive hazard. A minimum of inexpensive equipment is required, and this is easily portable under many diverse conditions. Postoperative nauses and discomfort usually attributed to general anesthesia are reduced to a minimum.

It was interesting to note that those cases which required considerable visceral manipulation showed very little postoperative shock when pentothal sodium anesthesia was used. During rather difficult surgical procedures in which visceral traction was in any way employed, there was never any evidence of vasomotor collapse. Peculiarly enough, there have been repeated instances in which patients who were suffering from severe shock, including that resulting from trauma, were markedly improved when anesthesia approached the deeper planes. This improvement was so pronounced that extensive surgery was performed with no apparent ill effects. These patients left the operating room in a much better general condition than when they entered.

From the patient's viewpoint, the anesthetic is highly gratifying. There is no fear of either the spinal needle or ether. The absence of postoperative nausea is a blessing. It was amusing to note the instances in which patients actually thought they had not been operated on, for as long as two to three days after the operation. It has become common experience to have patients request intravenous anesthesia, especially if they have had the opportunity to compare it with the other types of anesthesia.

#### Summary

Pentothal sodium is adequate for major surgery in any case in which intravenous approach is feasible. Adequate preoperative medication will markedly improve the course of anesthesia. If the dosage is adjusted to the individual needs of the patient by fractional administration, pentothal sodium oxygen anesthesia has a wide margin of safety and can be used in many cases when other types of anesthesia are definitely contraindicated. The simplicity of the technic is an extremely valuable asset in those instances in which time and equipment are necessarily limited.

### ACCEPTANCE OF BLOOD GROUPING EVIDENCE BY AMERICAN COURTS

When an American court fails to accept authentic blood test evidence it would not seem to be carrying out its responsibilities as an administrator of justice, the Journal of the American Medical Association for March 18 says in an editorial on "Blood Grouping Evidence." The Journal says:

"In courts of law any child born in lawful wedlock

is presumed to be legitimate, and from the earliest days this presumption of legitimacy has been an extremely weighty one. Under the law of the four seas' an English court once held that a child born in England was legitimate even though it appeared from the ... evidence that the husband resided in Ireland during the whole term of his wife's pregnancy and for a long time previously, because Ire-

band and wife belonged to type M, while the child belonged to type MN.) The test is now generally accepted as proof that a certain man could not have been the father of a certain child. In his decision the ludge remarked that at first he was inclined to think, albeit very reluctantly (italics ours), he was bound in law to accept the result of the blood group test, not because as a man he thought the doctor was right but because as a magistrate he thought the evidence was legally convincing. However, since the legal presumption of a child born in wedlock being legitimate is very strong, he finally decided not to upset it solely on scientific evidence. Evidently this judge preferred the comfort of adherence to tradition.

"The reaction of American courts to blood test evidence has been reviewed in a book that has just

appeared. The problem of paternity arises most frequently in so-called affiliation proceedings, less often in divorce actions. In the former the child is born out of wedlock and the mother designates a certain man as father and an action is started to compel him to support the child. In such cases, when the blood tests prove that the defendant is not the father of the child in question, the courts usually accept this result without hesitation, probably because an illegitimate child is involved. (It is highly significant that the woman usually confesses to indiscretion with other men besides the defendant after the results of the blood tests are divulged.) In uncontested divorce actions the reaction of the court is likewise favorable. In contested divorce actions, on the other hand, judges apparently prefer to accept the testimony of the wife rather than the objective blood test findings, so that in courts of this country, just as in England, not much progress has been made away from the law of the 'four seas.'

"No doubt the first duty of the court is to see that truth and justice prevail. In the English case cited, the court proudly announced the happy outcomethe husband agreed to make a home for wife and child and accept the child as his own. However, a reconciliation might have been effected without resorting to such subterfuge, because husbands in the past have been known to forgive erring wives and

to accept children not their own.

When a court refuses to dissolve or annul a marriage of two incompatible people, even though there is scientific proof of the wife's deceit or fraud, as has happened in a number of cases in American courts, the court would not appear to be carrying out its responsibilities as an administrator of justice."

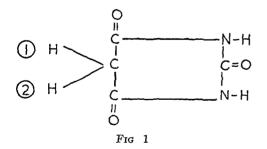
# CLINICAL STUDY OF ONE HUNDRED AND SIXTY-FIVE CASES IN WHICH SODIUM ETHALYL WAS USED AS AN HYPNOTIC AND SEDATIVE

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THE purpose of this study was to determine the hypnotic and sedative effects of sodium ethalyl. This product offers the combination of a quick-acting and a slow-acting drug, whose chemical structure and pharmacologic action will be discussed shortly. One hundred and sixty-five patients with varying diagnosis in the wards of the Fourth Medical Division, Bellevue Hospital, exhibiting many degrees of nervous and mental excitation, were given the drug, and its immediate, late, and later effects were studied. The results obtained will be considered in an analysis of the effects which follows. The chemical configuration and pharmacologic action will now be discussed.

# Chemical Configuration and Pharmacologic Action

Barbiturates with hypnotic properties are obtained by replacing the reactive hydrogen of barbituric acid with either aryl groups, alkyl groups, or both. The chemical formula of this parent compound is the following:



The type of aryl or alkyl groups used to replace the active hydrogen atoms (indicated by (1) and (2) in the above structure) determines very largely the degree of action obtained, its duration, the biochemical fate of the compound, and its other specific properties. In many of these compounds, the groups used to replace hydrogen (1) differ from those replacing hydrogen (2).<sup>1,2</sup>

Much of the difference in pharmacologic action between phenobarbital and pentobarbital is traceable to the difference in their chemical configurations. Compounds with branched sidechains, such as are present in pentobarbital,

Director, Fourth Medical Division, Bellevue Hospital. Resident, Fourth Medical Division, Bellevue Hospital. appear likely to manifest depressant effects of brief duration and are generally destroyed in the liver,<sup>3-7</sup> where they undergo side-chain oxidation. Their degradation products may be eliminated in the urine and have usually lost their therapeutic power.

The introduction of an aromatic group, such as is found in phenobarbital, results in a medicine which is relatively stable in the body and is eliminated in the urine. The longer period during which its action is evidenced may be associated with the time required for the elimination of the chemical by this route. This modification is also believed to be responsible for its specific anticonvulsant property in epilepsy.

TABLE 1,—165 PATIENTS—120 MALE, 45 FEMALE, AVERAGE AGE—54 1 YEARS, VARIATION—16-82 YEARS

```
Time passed before falling asleep—noted 120 times

Under 30 minutes—59 times or 49 2 per cent

Over 30 minutes—61 times or 50 8 per cent

Average time—20 6 minutes

Of these 18 asleep less than 30 minutes after lights were
                                     put out
14 given night of air raid alarm
                                        9 cough, pain, or other reason for being awake
                                    20—average time passed before falling asleep
was 56 minutes
4 cases of asthma
2 cases of bronchiectasis
                                           3 cases of pulmonary fibrosis and em-
                                           physema
7 cases of heart disease—various types
                                           I case of upper respiratory infection I G I hemorrhage
                                            I subarachnoid hemorrhage
    I subarachnoid hemorrhage

Effect after two hours—noted 282 times

235 asleep—83,8 per cent

47 awake—16 7 per cent

Of the 47 awake

after two hours 15 had slept well

22 had cough, pain, diarrhea, etc

10 had no specific complaint—

of these 7 had arteriosclerosis
                                                                              average age 70 years
  —average age 70 years

Effect after 12 hours—noted 267 times
122 had slept well—457 per cent
82 had slept fairly well—31.1 per cent
35 had slept poorly—13.1 per cent
15 had slept well, late—56 per cent
22 noted drowsiness for a variable length of time—8 2 per
                      cent
            3 drowsy in the morning-63 per cent
  Slept poorly
5 had pain or other good reason
15 had heart disease
            I psy chosis
               cases of bronchiectasis, bronchitis, or pneumonia
ulcer of the stomach
cases of uremia
               case of rheumatoid arthritis
           1 case of rheumatic actions
1 case of cytoscopy reaction
1 case of rheumatic heart disease
1 case of hypernephroma
7 cases of arteriosclerotic heart disease
1 case of pharyngitis

Effect after twenty-four hours—noted 157 times

No effect—92—58 6 per cent

Slightly drowsy—38—24.2 per cent

Drowsy—27—17 2 per cent
           1 case of phary ngitis
```

$$C_{c}H_{5}$$
 $C_{c}H_{5}$ 
 $C_{$ 

Fig. 2

The graphic formulas of these two synthetic drugs are shown above.

It is worthy of note that phenobarbital contains an ethyl group as the alkyl one and a phenyl group as its aromatic function. Pentobarbital possesses two alkyl groups, ethyl and 1-methylbutyl, the latter being a branched side-chain. The variation in pharmacologic activity between these two compounds is dependent upon these functional groups.

Respiration is only slightly depressed by soporific dosage of the barbiturates and this is largely the result of sleep or sedation. They have little effect on the cardiovascular system, for although the pulse rate and blood pressure may fall, these effects are generally due to the quieting action or sleep resulting from the medication. In experimental animals it has been found that barbiturates tend to decrease the general tonus of the intestinal muscles and the amplitude of rhythmic contractions. No direct effect on normal kidney function occurs from therapeutic barbiturate medication. Large doses may, however, have an antidiuretic effect. The basal metabolic rate is usually somewhat reduced by barbiturates, but phenobarbital does not decrease the oxygen consumption. Liver function is unimpaired.2,8-12

The procedure in each case was to give the patient one capsule of sodium ethalyl, and the patient was then observed after half an hour, in two hours, in twelve hours, which was usually the following morning, and in twenty-four hours. In Table I are recorded the various observations made following the giving of the drug.

It would appear from our study that in sodium

ethalyl one has a sedative and hypnotic that is effective in producing sleep rather promptly upon the administration of one capsule, as evidenced by the figures showing approximately half the patients asleep after half an hour and 83 per cent asleep in two hours. As in most medications of this type, the individual reactions of different patients vary, and it is doubtless a fact that a small number of patients may need a larger or a repeated dose. The duration of sleep would also be determined by the underlying disease, as those suffering from pain and respiratory embarrassment, such as the cardiacs, are more likely to be wakeful than the other patients. While a number of the patients were moderately drowsy the following day, none presented any evidence of mental confusion, "hang-over," or other untoward symptoms.

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# ANTS SPREAD DYSENTERY

Ants that get into the sugar bowl or other food, usually considered a harmless pest of tropical re-gions, are now incriminated as villains that probably spread dysentery, one of the disease scourges of the tropics which are a special danger to armies fighting in tropical regions.

Experiments in which ants actually did carry dysentery germs on their feet, leaving a twenty-four-hour trail of the germs wherever they walked, are reported by Dr. Sophie Deller Griffitts, of the School of Tropical Medicine at San Juan, Puerto Rico .-Science News Letter

### A SIMPLE APHASIA STUDY

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DHYSICIANS confronted with a case of aphasia are often at a loss to describe their findings accurately. In addition, the maze of theoretic considerations enveloping the subject makes it difficult to interpret the results of an examination. A standard method of recording an aphasia study was developed with the hope that it would simplify some of the concepts of aphasia. The accompanying chart (Chart 1) has been found to be of use on the Neurological Service of Dr. Foster Kennedy at Bellevue Hospital. It is not within the realm of this com-

From the Neurological Service of Dr. Foster Kennedy at

Bellevue Hospital.

\* Now at the Laboratory of Physiology of the Yale University School of Medicine.

munication to discuss fully the clinical interpretations of an aphasia study. The chart is presented as an aid to a systematic recording of the multiplicity of tests comprising an adequate examination of a patient with an aphasic disorder.

First, the examiner must determine whether the patient has sufficient intelligence and education to comprehend what is required of him during the examination. Second, the handedness of the patient and his family must be known in order to determine the dominant hemisphere. The examiner should watch for the occasional right-handed individual who comes from lefthanded stock and whose dominant hemisphere is on the right, in accordance with his heredity.

#### CHART 1

	Hearing		Vision	Tou	ch	Position Sens
Perception	Left ear Right ear Weber test	Rig	t eye ht eye ual fields	Cott	on	
Recognition of objects	1. Watch tick 2. Clap hands 3. Crumple paper	A. B.	Name objects shown  1. Pencil 2. Penny 3. Comb 4. Key 5. Scissors  Match objects with a written list 1. Pencil 2. Penny 3. Comb 4. Key 5. Scissors  Recognition of colors 1. Red 2. Blue 3. Yellow		Pencil Penny Comb	eyes closed
Recognition of Symbols	Spoken 1. Letter 2. Word 3. Sentence	Wri 1. 2. 3.	Letter Word		e writing o Right arm Left arm	
Motor Production	Speech 1. Pronunciation of words 2. Diction 3. Emotion with which delivered	Writ 1. 2.	Read own writing	4.	p Pencil Penny Comb Key Scissors	
Copying	Speech 1. Repeat spoken sentences 2. Repeat written sentences	Write 1. 2.	ing Spoken sentences Written sentences	1. 2. Follow	Left thumb Verbal Co	on left ear on right eye mmands on left ear on right eye
Music	1. Recognize melody	2. Whistle and sing a song				
Mathematica	1. Oral solution of problems 2. Written solut		n of pr	oblems		

The change of handedness in these cases is usually the result of early training. Third, the status of the primary sensory and motor pathways of the patient must also be known. Errors such as testing for visual recognition of a symbol in a patient with cataracts may thus be avoided.

The chart is divided into two broad fields: perception and motor functions. The sensory part of the examination is divided into three sections: (1) hearing, (2) vision, and (3) touch. The function of these modalities is tested in each of the three levels of sensation necessary for the complete interpretation of environment. simple example is the response to the ringing of an air-raid siren. The first level, perception, is one in which the patient appreciates a ringing noise. The second level, cognizance, is one in which the patient recognizes the noise as the ringing of the siren. The third level, conation, is one in which the patient appreciates the necessity of running for shelter, having recognized the sound of a siren as evidence of approaching danger.

The localization in the brain of each of these levels is not entirely known. The centers of perception are thought to be in clearly defined areas. The centers of cognizance are more diffuse but still are localizable. However, the conative functions are diffusely represented throughout the cortex. It is known that a lesion of the transverse temporal gyrus of the dominant hemisphere produces a defect in the perception of sound, whereas one in the posterior part of the first and second temporal gyri of the dominant hemisphere causes a defect in the cognitive level of hearing. Defects in the conative level may be produced by lesions in many areas. In the visual modality, defects in the perceptive level are produced by lesions in the calcarine area, while defects of the cognitive level are caused by lesions of the angular gyrus. The perceptive level of the third sensory modality, touch, is represented in the postcentral gyrus; however, lesions posterior to this area produce defects in the higher levels for touch.

Studies of motor aphasia reveal that there are three principal pathways of expression: (1) speech, (2) writing, and (3) motor activity of a definite motor pattern. The patient is tested for his ability to use each of these motor modalities in a simple test. Then the patient is tested for his ability to duplicate speech and writing, following both verbal and written examples. These represent a higher level of function. In testing the performance of a motor pattern, the patient follows verbal instructions as well as mimicking acts performed by the examiner.

The cortical localizations for the motor modalities are not so well known as those for the sensory functions. As a generalization, lesions of the region of the second and third frontal gyriaffect verbalization as well as the other forms of language, including reading and writing. It is known that motor performance is controlled by the precentral gyrus. However, the localization for the higher levels involving mimicking is not known. The mathematical and musical tests are included because striking defects in these spheres are occasionally encountered. Each of these is represented in an isolated area of the dominant temporal lobe.

Every competent neurologist will agree that while an aphasia study may be of practical significance in only a limited number of cases further elucidation of the problem is necessary as a complement to study of cerebral function. We believe that, although this chart will not satisfy the need for basic investigation in the problems of aphasia, it does provide a simple standard means of recording the responses of an aphasic patient.

### NEW MOTION PICTURE ON PREVENTION OF BLINDNESS

An addition to the growing number of motion pictures in the field of health education is "Eyes for Tomorrow," a two-reel film, produced by the Emerson Yorke Studio for the National Society for the Prevention of Blindness, 1790 Broadway, New York City. Alois Hayrilla is the commentator for the picture

the picture.

"Eyes for Tomorrow" stresses good general health as a prerequisite for good eyesight. It also deals with the importance of prenatal care as a means of reducing the amount of blindness caused by syphilis and gonorrhea; the conservation of vision among school children; the use of sight-sav-

ing classes for children with seriously defective vision; the necessity for regular eye examinations; methods of treating glaucoma and trachoma; and the eye hazards of industry.

The film, in 16 and 35 mm., will be distributed in the United States by the National Society for the Prevention of Blindness. Prints in 16 mm. are offered for sale at \$50, or rental at \$5.00 per day, exclusive of time in transit. A slightly altered version, with Spanish and Portuguese sound tracks, will be released throughout Latin America under auspices of the Office of the Coordinator of Inter-American Affairs.

### LOSE EITHER WAY

There's no use. If you make out your income tax return wrong, you are in the hands of the law;

if you make it out right, you are in the hands of the receiver.—Rotary Bulletin

### Case Report

### UNUSUAL CONTACTS IN EARLY SYPHILIS

Report of a Case of Extragenital Chancre on the Chest and a Case of Lymphogenous Syphilis d'Emblée

JOHN GARB, M.D., New York City

I AM herein reporting two cases of unusual contact in early syphilis. There are also other interesting features worthy of comment.

Case 1.—L. X., a white woman aged 41, came to the office on December 30, 1943, complaining of a growth on the chest of six weeks' duration. She gave a history of having had a benign tumor removed from the right breast in 1934 and a pelvic tumor removed in 1936. Her family physician treated her for a few weeks with topical remedies. He considered later the diagnosis of malignancy. A blood test was not done.

Just above the left nipple was a well-defined, painless, ulcerated growth. It was quadrangular, 1.5 cm. in diameter, flattened, and raised about 2 mm. There was a generalized macular rash which the patient did not consider to be of serious import. Darkfield examination of the nodule did not disclose Spirochaeta pallida. There were no erosions

on the labial and cervical mucosae.

I questioned her as to the probable source of infection. She stated that she gave practical nursing care to her brother, E. X., a sailor, who had a "rash and sores." She was quite certain, after I told her the nature of her disease, that her brother's rash was syphilitic. The patient felt convinced that she became infected through his soiled dressings. She denied that her brother kissed her on the chest.

Two blood samples were taken and sent to two laboratories. Laboratory A reported 4 plus Kline and Wassermann reactions. Laboratory B reported only a 1 plus Wassermann reaction. Two other blood specimens examined by Laboratory B a few days later under two different names gave 4

plus Wassermann reactions.

The sailor lived with a married sister who had two boys, four and six years of age, whom he had

been kissing frequently on the cheeks.

Case 2.—J. X., the father of these children, was seen by me on February 3, 1943. He complained of being restless, irritable, and depressed. He had been having a slight fever and an enlarged lymph node under his left armpit for ten days. His physician attributed the enlargement of the lymph node to a "strained muscle" and prescribed antiphlogistin. Examination revealed a generalized macular rash and a large cherry-sized growth in the left axilla. There was no evidence of a primary lesion on the hands. He had a reddened throat and a temperature of 101 F.

I informed the patient that his rash was undoubtedly syphilitic but that it should be corroborated by the finding of Spirochaeta pallida in the lymph node or by a positive Wassermann reaction. I questioned him at length about the manner of his infection. He stated that three weeks prior to the appearance of the lymph node he had a fist fight with his brother-in-law, the sailor, with resultant injury

and bleeding of the sailor's lower lip.

I injected a few drops of sterile physiologic saline

solution in the axillary lymph node and then reaspirated it from the lymph node tissue. Search for Spirochaeta pallida by darkfield illumination was unsuccessful. The Wassermann and Kline tests were strongly positive. Two days after the injection of bismuth subsalicylate (1 cc. containing 0.13 Gm. of bismuth subsalicylate) the lymph node regressed to about half its former size. On February 14 the patient developed a paralysis of the left facial nerve. He was unable to blink or smile. The lips were pulled over to the left side. The paralysis responded readily to antisyphilitic therapy, recovery taking place within one week.

paralysis responded readily to antisyphilitic therapy, recovery taking place within one week.

Case S.—E. X., the sailor, came to see me on February 12, as soon as he landed. He gave the following history. "On October 10, 1942, I noticed a tiny sore on my chin. After one week it became hard and raised. It was painless. A physician in New York gave me a salve. A blood test was not taken. A week later a rash appeared on the body. There was no itching. I later saw five doctors in Casablanca. They wanted a blood test to be taken but would not commit themselves to a

diagnosis."

On his chin was a dime-sized, slightly raised, ulcerated plaque. A hard, painless lymph node the size of a cherry was palpable in the submental region. There were fissures and ulcerations in the corners of the mouth. The teeth were decayed and many were missing. He had a mild laryngitis. There was a profuse generalized maculopapular rash with palmar lesions, masked in many areas on the lower half of the trunk by ill-defined patches of dermatitis. Darkfield examination of the serum obtained by scraping the squamous papules disclosed Spirochaeta pallida. The blood showed a 4 plus Wassermann but a negative Kline reaction. The patient was hospitalized at the U. S. Marine Hospital for treatment. The Wassermann test was repeated and reported to be strongly positive. The Kline test was not done.

The Kline test was not done.

Histologic Section: A papule excised from the left forearm was examined by Dr. Wilbert Sachs.

He described it as follows:

"Most of the vessels throughout the entire cutis are involved. About these is a tremendous local cellular infiltration. Some vessels are dilated and some are almost occluded. The walls are thickened. For the most part the intima is swollen and the endothelial lining projects into the lumen. The cellular infiltration, plasma cells, collarettes, are all features

infiltration, plasma cells, collarettes, are all features of secondary syphilis."

Case 4.—D. X., the younger child of J. X., showed on March 8 signs of acute infection. He had a temperature of 101 F. and a mucopurulent nasal discharge. The tonsils were acutely inflamed and hypertrophied, especially the left. I scraped off the scaly papules and made a darkfield examination of the exuding scrum but found no Spirochaeta pallida. The family objected to a puncture of the

cervical lymph node.

A week later the child developed an upper respiratory infection. A blood specimen taken at that time and examined in Laboratory A gave a 3 plus Wassermann and a 2 plus Kline reaction. The Wassermann, Kline, and Mazzini tests done by Laboratory B on the same serum were negative. The child was placed under the care of his family physician, who prescribed sulfanilamide tablets. Subsequent physical examination did not reveal any evidence of a syphilitic infection. Several blood tests taken since have been negative.

#### Comment

The sailor infected his sister and brother-in-law-He probably infected his sister, L. X., through the soiled dressings or through droplet material in coughing or spitting. Dressings with moist discharges are extremely dangerous. <sup>12</sup> Droplet material from coughing or spitting constitutes a real danger. <sup>15</sup>

J. X., his brother-in-law, did not show any evidence of a primary lesion on the hands. He denied the presence of a lesion which might have been an extragenital chancre on the hand. The source of entry was most likely an abrasion on the left hand, as evidenced by the large lymph node in the left axilla. This lymph node could properly be called bubon d'emblée of the lymphogenous type. Stokes tates that "It is a fact that while the appearance of the chancre at the site of inoculation is the usual expected sequel of the entry of the organism, there is much to suppose that the primary reaction may be absent and inoculation show its first signs not at the point of traumatic entry but in the adjacent lymphatics (bubon d'emblée)."

Facial nerve paralysis, of which this patient complained, is a fairly uncommon complication. It constitutes about 1 per cent of the symptomatology in early syphilis.<sup>14</sup> This type differs from the facial paralysis of other causes by its prompt re-

sponse to antisyphilitic therapy.

The children and the remaining members of the family have luckily escaped the disease. But there may have been others infected by the sailor during the three months of his untreated virulent syphilitic infection. The physicians in New York and in Casablanca apparently failed in the diagnosis although the "sore" should have been recognized as an extragenital chancre occurring frequently enough on the upper lip. It should certainly have been readily diagnosed by the physicians in Casablanca when there was subjective and objective evidence of primary and secondary syphilis.

The doctor might easily be excused in failing to diagnose the chancre in the sister because of the unusual location, above the left nipple. The history of the removal of a tumor from the left breast in 1934 had apparently taken him off guard and influenced him in considering the diagnosis of malignancy. The presence of the large lymph node in J. X. in the absence of a typical primary sore might easily mislead many physicians. A careful examination, however, might have already revealed a typical eruption of secondary syphilis and a routine blood test might then have given a positive Wassermann reaction.

These cases illustrate the fact that practitioners fail frequently to recognize extragenital chancres, especially those that are atypical. Stokes1e states that "A lesion on the genitalia may arouse some suspicion a priori, but a lesion on the finger, lip, or tonsil seldom does. Syphilis seems to be suggested last to the examiner, instead of first, of all the existing possibilities. As long as this state of mind exists the recognition and proper appraisal of extragenital onset in this disease will be anything but complete." In a multiple extragenital infection in five members of a family reported by Rowntree and Hendon<sup>2</sup> two syphilitic lesions were not recognized by a physician. The diagnosis of trench mouth was made for a tonsillar infection and impetigo for a chancre of the lower lip.

The following suggestions are, therefore, offered as essential and imperative prerequisites for combating syphilis. It should be mandatory for practitioners to take short courses in syphilology in a skin and syphilis clinic. These courses should be repeated at five-year intervals. While a course of four to six weeks would be inadequate for learning all the aspects of syphilology, it would at least lead the doctor to regard any suspicious lesion as possibly syphilitic until ruled out by clinical and laboratory

data.

Stress should be placed on the necessity of a complete physical examination in any cutaneous manifestation, especially when the diagnosis is in doubt. The age of the patient should not in any way deter the physician from considering the possibility of early syphilis. This is well exemplified by the following case:

Case 5.—C. J., a man aged 81, registered at the New York Skin and Cancer Unit on October 29, 1943, presenting a rash of three weeks' duration on the left forearm. Examination of the trunk showed a painless, large, pea-sized indurated erosion on the prepuce. He had a generalized fine macular rash. The blood test was strongly positive. This patient, less carefully examined, would have been quickly discharged with a diagnosis of a mild dermattis, as the rash on the forearm which he presented appeared to be of a nondescript nature.

Routine blood Wassermann tests should be done on every new patient in a doctor's office and in the clinic. Many early and latent syphilitic patients would thus be discovered.

The public should be systematically warned of the danger of infection by kissing, especially by one having a rash or sore. Kissing, beside transmitting other infectious diseases, constitutes the overwhelmingly predominant mode of transmitting syphilis extragenitally.3a Spirochaeta pallida have been found in the saliva.3b In a famous incident reported by Schamberg3c seven young women developed syphilitic lesions following a kissing game in which a young man with a chancre of the lip participated. One of these girls later infected another young man by kissing. In Rowntree and Hendon's2 report a baby aged 18 months and a girl of 11 developed chancres on the lower lip, a boy aged 6 years had a fissured encrusted lesion on the pinna of the left ear, and a girl aged 17 had a lesion

inside the lower lip. The latter was infected by her brother, aged 19, who had a lesion on the right tonsil.

Laboratory B made an error in the first blood test of L. X., reporting a 1 plus instead of a 4 plus Wassermann reaction, and Laboratory A wrongly reported a 3 plus Wassermann reaction on the blood specimen of the child D. X., as the same serum examined by Laboratory B was found negative. This shows clearly the necessity for examination of the blood, especially in cases of suspected early syphilis, by two reliable laboratories to avoid confusion, false diagnosis, and delay in treatment. It would have been wrong to treat L. X. for syphilis on the 1 plus Wassermann report of Laboratory B. even though the clinical manifestations were those of a typical case of early syphilis. Neither should one rely upon one positive blood test report in the absence of a syphilitic rash and a negative darkfield, even though the history and some clinical manifestations point to a syphilitic infection. Had I relied on the 3 plus report of Laboratory A, which seemed to substantiate the clinical evidence of a probable syphilitic infection (history of exposure by kissing to the same source of infection as his father and aunt, malaise, mucopurulent discharge, acute tonsillitis, large submaxillary lymph node, and maculopapular rash on the sole of the right foot), the child D. X. would have been stigmatized as a syphilitic and subjected to unnecessary and prolonged treatment with potent drugs. Laboratory A apparently erred in the 3 plus Wassermann report of this child, as the same serum examined by Laboratory B was negative. Subsequent examinations and blood tests definitely ruled out a syphilitic infection.

Even if the 3 plus Wassermann report had been correct, it could have signified a false positive reaction occasionally occurring in infants and children4 with upper respiratory infection.

E. X., the sailor, gave a 4 plus Wassermann but a negative Kline reaction. This may occasionally occur in a patient with early syphilis whose serum gives a positive reaction with the Kolmer-Wassermann test and negative reactions with all flocculation tests, including the Kahn and the Kline. The Kline test or any other single-celled microflocculation procedure could give a false negative zone reaction<sup>5</sup> with a high-titered serum. Such a

serum should be diluted with normal saline solution. The test may become positive in higher dilutions.

### Summary

Two cases in one family are reported, one with an extragenital chancre on the breast and one with bubon d'emblée, both contracted from a third member of the family.

These two cases, like many others with extragenital chancres, were not recognized by the practitioner, while the chancre of the lip of the sailor who infected them was not diagnosed by several physicians.

The blood examination of the sailor gave a 4 plus Wassermann but a negative Kline reaction. This may occur occasionally with a high-titered serum. Such a serum may become positive in a high dilution with normal saline solution.

A suggestion is offered that practitioners take courses in syphilology to make them so syphilis conscious that they think of syphilis first rather than last in any case of questionable diagnosis.

More careful and complete examination is urged in all cases. Routine blood Wassermann tests should be done on every new patient in the clinic and private practice, thus helping to discover cases of syphilis that are frequently overlooked in a cursory examination.

Systematic education should be given to the public, warning of the danger of infection by kissing.

Blood tests in early syphilis should be sent to two reliable laboratories to avoid error, such as was made in the case of a 4-year-old child who had all the earmarks of an early syphilitic infection, including a 3 plus Wassermann report. The same serum was found to be negative by another laboratory. Subsequent physical and laboratory examinations proved the infection to be of a nonsyphilitic nature.

219 East Nineteenth Street New York City

#### References

- Acterences

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  2. Rowntree, A. R., and Hendon, R. J.: J.A.M.A. 115; 116 (July 13) 1940.

  (3) (a) Stokes, op. cit. p. 573; (b) ibid., p. 26; (c) Schamberg, cited by Stokes, p. 574.

  4. Hill, Allan: J. Pediat. 21: 207 (Aug.) 1942.

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A new name is herewith presented medical men for the dazed mental condition of citizens who have just made out their income tax. They are intaxicated. - Washington Evening Star

### Sunshine and the Food Value of Plants

When the housewife goes to market to buy greens for her family she assumes that spinach is spinach regardless of variety, age, conditions of growth, and time of harvesting. She takes for granted that a pound of spinach or chard obtainable on one day is equal in quality to a pound on any other day, regardless of time and weather conditions. In the feeding of animals the farmer even assumes that two hours' pasturing of his stock in the early morning is equivalent to two hours in the late after-

Actually, these assumptions do not agree with the facts. Definite differences in the amount of starches, sugars, proteins, fats, minerals, and of vitamins as well may be found in plants subjected to different weather conditions, especially at and near the time of harvesting, or even in plants picked at different times of day. Differences, which are particularly noticeable in the leaves, may be found also in plants

of different ages.

To increase our knowledge of one of the vitamins, namely, vitamin C, studies were made to determine the effect of age, conditions for growth, and time of harvesting upon the quantity of this substance in tdible plants. It was assumed that the amount of food in a pound of spinach or peas might depend upon how old the plants were when the vegetables were picked, on the age of the vegetables themselves, on the time of day when they were picked, and on whether the weather had been prevailingly cloudy or sunny during their growth, particularly around the time of harvesting. It was found that light has a remarkable effect upon the accumulation of vitamin C. Seedlings sprouted in light contained, after seven days, more than four times as much vitamin C as seedlings of the same age grown in darkness. Plants grown in the greenhouse during May and June in the neighborhood of Washington, D.C., contained twice as much vitamin C as plants grown during December and January. In more northerly latitudes it might be expected that the differences at the two seasons would be even greater. However, recent tests with tomatoes conducted at the U.S. Department of Agriculture's Regional Laboratory at Ithaca, New York, yielded differences in Vitamin Contact that the contact winter months. vitamin C values in the summer and winter months similar to those which had been found with other types of plants at Washington, D.C.

Fruit from the shaded side of a tree has been shown by other workers to have a lower vitamin C content than that from the sunny side, and even in individual fruits the sunny side has been found to have more than the shaded side. The changes in the amount of vitamin C in a plant under varying conditions of sunlight are noticed first in the leaves, though later differences may be observed in other

parts, even in the roots.

Losses of vitamin Cat night amounting to as much as 20 per cent of the total quantity, and possibly even more, may occur in some types of plants. Appreciable losses at night occur only when the temperature is high enough to allow growth to take place. Similar losses of the vitamin may occur also during the day but the quantity thus lost is not readily measurable because the vitamin is manufactured more rapidly than it is used. So the net result is an increase in vitamin C. Manufacture at a slow rate occurs at night, but its magnitude is difficult to describe the control of t termine because the vitamin is lost much more quickly than it is made. These facts suggest that vitamin C is used by the plant in the process of growth. Just what it does with the vitamin is so far a secret with the plant. The evidence suggests, however, that it is used for some purpose in the growing regions such as in the tips of the roots and stems and in the development of the young leaves.

As a consequence of its own life processes, therefore, a plant starts the day with a lowered amount of vitamin C. If there then follows a succession of very cloudy days, and if the plant is growing rapidly, there tends to be a slow but progressive lowering of the amount of vitamin C. Comparable losses in the sugars and starches of plants under similar conditions have been recognized for a long time. Then comes a bright, sunshiny day. Marked gains in the vitamin are to be observed during the course of the day. Some types of plants may, under these conditions, have more than 25 per cent

more vitamin C by late afternoon than at break of

An interesting example of this variation in nutriitonal value of plants as related to time of day turned up in an experience in silkworm feeding. In sections of Italy where silkworm production has been an important industry from ancient times, it has been the practice to gather the mulberry leaves, used in feeding the worms, at dusk. These sericulturists have found by experience that leaves gathered at the end of the day tend to yield better results than leaves collected in the morning. Chemical studies of mulberry leaves have revealed why this is true. During the day, under the influence of sunlight, the leaves become enriched in nutritive substances, not only with carbohydrates such as starches and sugars but also with proteins, fats, minerals, and presumably vitamins, too, since vitamin C, for example, is known to be present in relatively high concentrations in mulberry leaves. Moreover, the protein of young mulberry leaves nearing full size has been found to be superior in quality, quantity, and digestibility to that in well-matured leaves.....

Just as in mulberry leaves, a greater amount of

starches and sugars is found in plants kept in sunlight than in those kept in shade, and more also in plants collected in the evening than in those collected in the morning; but nothing was known until recently of the effect of variations in these different conditions on the amounts of any of the vita-

mins.

It remains to be seen whether the amounts of the other vitamins in fruits and vegetables vary as does vitamin C with differences in light intensity, length of day, and time of day for harvesting. It seems probable that if differences occur they won't be so great as those of vitamin C, unless the vitamin in question, like vitamin C, is also used up in the life processes of the plant. .

Present results suggest that for good vitamin C values the harvesting of vegetables should not be done before mid-forenoon, say, 10 o'clock, after generally clear weather. It is preferable to harvest, if possible, after a spell of clear weather, or, if it must be done following cloudy days, collection should be made late in the day. Because of the tendency of vegetables, especially those of leafy type, to lose vitamin C on standing, when weather conditions permit, vegetables from the home garden should be freshly picked each day.

Particularly now, because of the war emergency, all available methods for the procurement of high vitamin values in foods should be utilized to the full-

est extent practicable. The dehydration of foods . . . . involves considerable loss in vitamin content, particularly vitamin C. It is well known, too, that some loss of vitamins usually occurs in the cooking and canning of foods. Rather extensive destruction of vitamins may take place also during the shipment, storage and marketing of fresh foods, some of which could and undoubtedly will be lessened by improvement in methods of treatment. It is probably inevitable, however, even under the best of

conditions, that comparatively large losses of vitamins will continue to occur in the handling, storage and cooking, or processing of foodstuffs. Therefore, in order to ensure each individual an adequate daily quota of these essential substances it becomes important that everything possible be done to provide both the processor and the housewife with foods having high original vitamin values.—Mary Elizabeth Reid, U.S. Public Health Service, in the Journal of the New York Botanical Garden

### GALEN (A.D. 131-201)

For Rome Galen was an episode; for the Middle Ages anepoch.—Meyer

For fifteen centuries Galen, the greatest of the Greek physicians after Hippocrates, dominated the entire field of medicine with no challenge to his authority; his theories were accepted as facts and his systems transmitted as law. How one man could acquire such stature and remain in so lofty a position for over a thousand years is the most amazing phenomenon in the annals of medical history.

This remarkable man was born in Pergamos, Asia Minor (A.D. 131), the son of an architect. He studied medicine in Greece and Alexandria and eventually practiced in Rome. Here he achieved a wide reputation, and at the time of his death (A.D. 201) was the recognized leader of the profession. After his death the science of medicine suffered a

gradual decline until the Renaissance.

Galen, a professed disciple of Hippocrates, firmly believed in direct observation and experiment. Although, because of the existing prejudice, he had no opportunity for dissecting human bodies, he did carry out experiments and dissections on most of the available species of animals. He was a voluminous writer, and his works, which are a gigantic encyclopedia of the time, include books on anatomy, physiology, pathology, therapeutics, and pharmacy. He was an extreme egotist and constantly "blew his own horn." While his writings contain numerous records of his miraculous cures, they contain no clear accounts of his cases. In spite of numerous faulty conceptions, such as his ideas that there are "pores" in the interventricular septum and that the uterus is double, he made many fundamental discoveries and deserves the title "the founder of experimental physiology." He was the first to describe the cranial nerves and the sympathetic system; he made the first experimental sections of the

spinal cord, producing hemiplegia; he produce aphonia by cutting the recurrent laryngeal nerve he gave the first valid explanation of the mechani of respiration; and he showed that the arteries co tain blood and that the excised heart will beat ou side the body. His excellent experimental work wa spoiled, however, by his involved theories which paradoxically, made him the undisputed medic authority for fifteen centuries.

Galen attempted to fit everything into one gran scheme, with an answer for every problem and reason for every phenomenon. He believed the Nature had created every part of the organism for specific purpose and that the perfect relation be tween the function of an organ and its pre-estab lished purpose merely proved the omniscience o God. For Galen the body was but the instrument o the soul. Thus his system, which corresponded in its essential features to Christian dogma and at the same time to the monotheistic systems of the Arab and Hebrews, was quickly taken up by the Church and also cherished by the Arabic and Hebrew phy sicians. His position, therefore, remained unassail able for centuries, since those who questioned the truth of his statements were treated as heretics Through the dark years of the Middle Ages Galen's brilliant researches lay sterile, while scholars "mistook the symbol for the thing" and wasted themselves in vain discussions of philosophy and dogma. However, we should not be too quick to condemn the medieval mind, for today we have only to look about to see how readily students are attracted to dogmatic Although in this modern scientific age teaching. Galenism is considered dead, in Persia and Syria Galen's writings are still held in great respect and we ourselves often are only a short step from medievalism .- J. C. T., in Thumbnail Sketches of Eminent Physicians, North Carolina M. J., Feb., 1944

### ARMY ARTISTS AT FRONT PICTURE LATEST SURGERY

A medical history of the war, recording in photographs and drawings new surgical technic and unusual treatment of disease, is being prepared in the European theater by soldier artists, members of the Museum and Medical Arts Service of the Medical Corps, the War Department announces.

Drawings of a rare eye disease, coloboma, involving a growth in the interior of the eyeball, were made by Sgt. Clifton B. Potter, of Beverly, Massa-

chusetts.

"I climbed into a sterile gown and stood by the surgeon and looked over his shoulder," Potter said. "I didn't actually draw in the operating room, but took quick mental notes and transposed them later

into sketches. These were enlarged into pictures of

each step of the operation."
Sgt. Joseph G. Nalopovic, of Silver Springs Maryland, recently photographed a simplified method of applying plaster casts in the field, making twelve pictures of various stages.

Capt. Ralph D. Reed, of Bethesda, Maryland, for-merly bacteriologist with the United States Public Health Service, with the aid of three photographers and two medical artists, set up an "art gallery" and darkroom.

He and his staff took motion pictures of any operation or treatment valuable for future study by Army doctors.

### Honor Roll

### Medical Society of the State of New York

### Member Physicians in the Armed Forces

### Supplementary List

The following list is the nineteenth supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, December 15, 1943, January 15, February 1, February 15, March 1, and May 1, 1944, issues.—Editor

Adder, J. J.
Theresa, N.Y.
Amoruso, J.
315 E. 116 St., New York 29, N.Y.

Bowman, F. H
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Bulors, P. N.
680 W 204 St., New York 34, N.Y

Cohen, L J (Lt)
APO 926, c/o P.M., San Francisco, Calif.

Davis, W A
331 E 71 St., New York 21, N.Y.
De ingelis, A M (Lt)
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Dodge, K G
56 E 76 St., New York 21, N Y

Emanuel, A. 402 E 74 St, New York 21, N Y.

Feder, N. J.
144 E. 22 St., New York 10, N Y.
Feldman, A L.
117 S. Second Ave., Mount Vernon,
N.Y.
Fodda, G E.
35 E. 70 St., New York 21, N.Y.

G
Goldfein, J (Capt)
Carlisle Barracks, Pa
Gordon, D M
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N Y.

Jaffe, I (Capt)
2108 Ave L. Brooklyn 10, NY.
Jaques, A 4 (Lt. USNR)
350 Hempstead Ave. Rockville
Centre, N.Y.

Kaufman, H H
911 Walton Ave, Bronx 52, N Y'
Kinnev, R A
100 E 4 St., Jamestown, N.Y.

Langford, W S
Babies Hosp 167 St & Broadway,
New York 32, N Y
Lederfeind, D
328 W 145 St, New York 30, N.Y.
Litwins, J.
14 Fith Ave, New York 11, N.Y.
Lyon, E F
133 E 58 St, New York 22, N.Y.

Monaco, T. C Walton, N.Y.

Noonan, C E 315 Driving Park Ave, Rochester 13, N.Y Palmer, H H.
Broad Park Lodge, White Plains,
NY.

Pearlman, C K. (Capt) c/o Veterans Hosp, Huntington, W.Va Phelps, O A

Phelps, O A
Fort Plain, N Y
Pine, M.
2021 Grand Concourse, Bronx 53,
N.Y.

R
Ressler, C
71 E 87 St , New York 28, N Y.

Singer, R 897 Park Ave, New York 21, N Y Smallen, E L 25 Svivan Ave, New Haven, Conn

Veses, F A (Lt)
Station Hosp, Camp Howze, Tex.

Werlin, S. J. (Lt.) 2008 15 St., Troy, N.Y. Wolfi, H. 19 E. 90 St., New York 28, N.Y.

Z Zahn, D 83 Old Mamaroneck Rd, White Plains, N.Y.

### NORTON AWARD FOR BOOKS ON MEDICINE AND THE MEDICAL PROFESSION

W. W. Norton and Company, New York City publishers, are offering the Norton Award of \$3,500, to encourage the writing of books on medicine and the medical profession for the layman.

Books in several categories are eligible: accounts of scientific research supplying firsthand, dependable information on new medical developments; autobiographies and accounts of personal experiences in the medical field; histories of any aspect of medicine or biographies of medical figures; theoretical works on scientific or social aspects of medicine. The book for which the award is made will be published in 1945; manuscripts must be delivered to the publisher by December 31, 1944.

A candidate must be a professional worker in the

field of medicine or must be a collaborator with such a worker. The manuscript should be addressed to the layman and would preferably be 60,000–175,000 words in length, although there is no restriction in this qualification.

Burma Surgeon by Gordon Seagrave, The Wisdom of the Body by Walter B. Cannon, and An American Doctor's Odyssey by Victor Heiser are some of the books on medicine and the medical profession published by Norton.

The entry form which must accompany each manuscript, the Norton Manual of Style, and further information may be obtained on request from W. W. Norton and Company, Inc., 70 Fifth Avenue, New York 11, New York.

### Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D., and Chorles D. Post, M.D.

### Six Lectures for Sullivan County

A SERIES of meetings to provide postgraduate instruction in general medicine has been arranged for the Medical Society of the County of Sullivan, to be held on Wednesdays at 8:00 p.m.

Sullivan, to be held on Wednesdays at 8:00 p.m.

The first meeting will take place on May 17 at the Lenape Hotel, Liberty. A lecture entitled "The Early Treatment of Poliomyelitis, with a Description and Evaluation of the Kenny Technics" will be delivered by Dr. Philip M. Stimson, associate professor of clinical pediatrics at Cornell University Medical College. This will be the society's semi-annual meeting. On May 24 Dr. Donovan J. McCune, of the Babies Hospital, New York City, and associate professor of pediatrics at the College of Physicians and Surgeons, Columbia University, will speak on "Deficiency Diseases" at Monticello Hospital, Monticello.

The third meeting will be held at the Woodbourne Institution for Mental Delinquents, Woodbourne, on June 7. "Headache" will be the topic discussed by Dr. Harold G. Wolff, associate professor of medicine at Cornell University Medical College. On June 14, at the Workmen's Circle Sanatorium,

Liberty, Dr. Ralph G. Stillman, assistant professor of medicine (clinical pathology) at Cornell University Medical College, will speak on the subject, "The Significance of Laboratory Tests and Methods in the Practice of Medicine."

On June 21 Dr. Joseph J. Bunim, assistant professor of clinical medicine at New York University College of Medicine, will deliver a lecture called "Newer Chemotherapeutic Methods." This meeting will be held at the Lenape Hotel in Liberty.

ing will be held at the Lenape Hotel in Liberty.

The last meeting will be held on June 28 at Monticello Hospital, Monticello. "The Relation of Vitamins to Disease" will be the lecture; the speaker will be Dr. Norman Jolliffe, associate professor of medicine at New York University College of Medicine.

This instruction is provided by the Medical Society of the State of New York, except for the lectures on poliomyelitis, deficiency diseases, newer chemotherapeutic methods, and the relation of vitamins to disease, which are provided jointly by the Medical Society of the State of New York and the New York State Department of Health.

### THE FATIGUE LABORATORY

The Fatigue Laboratory of the Harvard School of Business Administration was the result, more or less directly, of the wisdom and foresight of Dean Wallace B. Donham, who, during his term of office, appreciated the possibilities of research into the conditions with which industry is concerned. The laboratory was accordingly set up, in 1928, under the auspices of the Rockefeller Foundation, and continues to function with the aid of the National Research Council.

The late Prof. Lawrence J. Henderson directed the establishment of the laboratory and was its wisest counselor, under the successive directorships of Dr. Arlie V. Bock and Dr. D. B. Dill. Lieutenant Colonel Dill continues his interest during the present activities of the laboratory, but the active directorship has passed back into the hands of Dr. Bock for the duration of the emergency, with the practical functioning of the laboratory in the hands of Drs. R. C. Darling, W. H. Forbes, and Robert E. Johnson

Except for a small flame of pure research that is kept burning at the laboratory until better days for academic pursuits have returned, the work that is being conducted is done entirely for the Office of Scientific Research and Development and for the Quartermaster Corps of the Army. Thus, in the cold room, with a minimum temperature of -40 F., various types of warm clothing, including electrically heated suits and shoes, are tested on the living subject; here also, stiffly recumbent, lies "Oscar," the electric dummy, within whose patient frame is

measured the amount of current required to keep his body temperature up to a human normal with the aid of various styles and types of garments. In another chamber tropical heat and humidity are attained, and here experiments are conducted on heat exhaustion and acclimatization, and the best types of clothing for these climatic conditions, with a three-and-a-half-mile-an-hour march simulated on an electric treadmill. Still another chamber furnishes the atmospheric pressures of various altitudes.

Nutrition studies based on the standard field rations are being conducted, with a view to their balance, particularly regarding the vitamin B fractions; studies have been made under field working conditions on the protein requirements of the body, and it has been found that good health and nutrition can be maintained on a protein intake considerably below the traditionally accepted 70 Gm. per day, with those that are provided being principally from vegetable sources.

In addition to its homework, the laboratory is constantly on call to send its investigators into the field wherever needed, to make their studies under actual living and working conditions. Its official reports run into volumes, and when, finally, the veil of secrecy can be lifted, it will be found that scientific progress has taken some tremendous steps in various directions during the war years.

in various directions during the war years.

Indefinite and inclusive as the term "fatigue".
may be, the Fatigue Laboratory has long since outgrown its title.—Editorial in New England M. J.,

Dec. 30, 1943

### Medical News

### Lahey Reports on Relocation of Physicians

BETWEEN January, 1942, and the end of February this year the War Manpower Commission has managed to relocate 2,955 physicians to areas where their private practice is more acutely needed, the agency announced on April 22.

Dr. Frank H. Lahey, chairman of WMC's Procurement and Assignment Service, estimated that perhaps 250 more physicians were enabled to obtain

new locations in March.

The procurement service has the cooperation of the United States Public Health Service in its program to assist local communities in the relocation of physicians. Under a recent law the United States Public Health Service may pay a subsistence allowance of \$250 a month for three months to a physician being relocated, plus transportation expenses, provided the local community pays one-fourth of the total cost.

'Although the allocation of physicians between the armed forces and the civilian population effected by the Procurement and Assignment Service has resulted in an over-all equitable withdrawal of physicians for military service, serious medical care problems exist in many sections of the country as a whole," Dr. Lahey said. "Since 1942, through March 31, 1944, State Chairmen of the Procurement and Assignment Service have reported 510 areas as being critically short of medical personnel.

"Of these areas the needs for medical personnel were met in 281 communities, or 55 per cent of the critical areas. Relocations were effected in 135 of these communities and the needs of 146 were met

by other means."

Dr. Lahey explained that among the methods included in the phrase "by other means" were inducing retired physicians to resume active practice, changes in types of medical practice, and "freezing" of medical personnel in civilian communities by Procurement and Assignment Service classification as "essential."

The needs of 185 communities have not yet been

The needs of 185 communities have not yet been met, he said, and reports have not been received from 44 communities on the steps that they have

taken.

### Baruch Gives \$1,100000, for Physical Medicine

BERNARD M. BARUCH, of New York City, has announced a donation of \$1,100,000 in cash of his personal fortune for a ten-year program in the study and teaching of physical therapy—a field in which he inherited a life-long interest from his father, the late Dr. Simon Baruch.

The seventy-three-year-old financier, who is special adviser to James E. Byrnes, director of the Office of War Mobilization, said he would put most of his fortune into the project if it is successful, and explained that he was moved to give the money at this time because of the increasing importance of physical therapy in the care of war wounded.

Mr. Baruch said the funds would be distributed as follows: Columbia University College of Physicians and Surgeons—\$400,000; New York University College of Medicine—\$250,000; Medical College of Virginia—\$250,000; selected medical

schools not yet announced—\$100,000; for fellow-ships and residencies—\$100,000.

The Baruch plan, which is based on recommendations made by a committee of scientists and medical men headed by Dr. Ray Lyman Wilbur, chancellor of Stanford University, has the primary aim of multiplying by at least five times the present 2,700

physical therapy specialists.

Mr. Baruch's grant will be administered by a board of three, directed by Dr. Frank H. Krusen, professor of physical therapy at the University of Minnesota and head of the section on physical therapy at the Mayo Clinic. Dr. Wilbur will be chairman of the committee and its third member is Miss Mary Boyle, an assistant to Mr. Baruch for the last thirty-five years. Headquarters of the board will be at 597 Madison Avenue, New York City.

### Jewish Tuberculosis Group Marks Thirtieth Anniversary

THE thirtieth anniversary of the Committee for the Care of the Jewish Tuberculous, Inc., was elebrated on April 27 by a dinner at the Waldorf-Astoria Hotel in New York City. Dr. David R. Lyman, medical director of Gaylord Farms Sanatorium, Dr. Louis I. Dublin, vice-president of the Metropolitan Life Insurance Company, and Fred M. Stein, president of the Committee, spoke.

The central theme of the talks was rehabilitation.

The central theme of the talks was rehabilitation. Edward Hochhauser, executive director of the organization, said: "The story of our experience in

the rehabilitation of the tuberculous has particular significance not only for the tuberculous but also for other war and civilian disabled."

A message from President Roosevelt, praising

the work of the Committee, was read.

Although now an independent organization, affiliated with the Federation for the Support of Jewish Philanthropic Societies, the Committee for the Care of the Jewish Tuberculous was founded in December, 1913, as a unit of three established agencies.

### New Cancer Book by Dr. Little

THE eagerly anticipated handbook, Cancer—A Study for Laymen, on which Dr. Clarence C. Little, managing director of the American Society for the Control of Cancer, has been working for many months, will soon be en route to each state headquarters of the Women's Field Army. It has

been printed for free distribution through the generosity of an anonymous donor. It is not for sale. A total of 9,000 copies are to be sent to the states so that every worker, down through and including county captains, will receive this real contribution to the work of the Women's Field Army.

It is a book of reference which contains a brief review for the intelligent and interested layman of the more important knowledge concerning can-

There are three main subdivisions. The first deals with facts pertinent to cancer research and to an understanding of the nature of the disease. second deals with diagnosis and treatment. third covers the field of cancer education.

The particular group to which the book is addressed is the officers of the Women's Field Army. Those outside of the Field Army will find in the text perhaps a personal emphasis which they may not understand unless they keep in mind that the text is partly in the nature of advice and instruction to people who have a particular responsibility and are actively engaged in cancer control work.—Women's Field Army News, April, 1944

### County News

### Albany County

The Albany County Medical Society met in the auditorium of the Albany College of Pharmacy on April 26. Dr. William Dameshek, of Boston, professor of clinical medicine at Tufts College Medical School and a member of the faculty of Wartime Post-graduate Instruction, spoke on "The Practice of Hematology." Discussion of the paper was opened by Drs. James Rooney, James Bucci, and Joseph Schwind.

### Erie County

The stated meeting of the Medical Society of the County of Erie took place on April 25 at the Hotel Statler, Buffalo. The Most Reverend John A. Duffy, Bishop of Buffalo, spoke on "The Social Security Bill, Your Doctor, Your Hospital, and You."

The Buffalo Academy of Medicine will meet on May 17 in the Niagara Room of the Hotel Statler. Dr. Donald S. Martin, of Duke University, will speak on "Diagnosis and Treatment of Systemic Fungus Infections."

Ten Buffalo doctors, members of Emergency Base Hospital 31, spent the week of April 9-15 at the Halloran General Hospital, Staten Island, learning the latest developments in war medicine by helping Army doctors care for wounded men from overseas. Hospital 31 is composed of staff members of the

Millard Fillmore, Sisters, and Mercy Hospitals. All the civilian doctors are reserve officers of the U.S. Public Health Service. Dr. Harry C. Guess, director of Hospital 31, and Dr. Stephen L. Walczak are lieutenant colonels and senior surgeons. others, majors and surgeons, are as follows: Drs. Leslie A. A. Benson, Edward M. Tracy, Porter A. Steele, Allen E. Richter, Donald R. McKay, Pierce Taylor, Albert W. Palmer, and Edward T. Butler. Dr. Butler is adjutant of the unit. Dr. James P. Kinney and Dr. Margaret Warwick Schley also are in the unit but were unable to make the trip.\*

### Herkimer County

Dr. Ellery G. Allen, of the Syracuse University faculty, spoke on "Blood Diseases" before the county society on April 4 in the Mohawk Valley Country Club. The meeting, which opened at 4:00 P.M., was followed by dinner at 6:00 P.M.\*

Dr. Hans Kotrnetz and his wife, Dr. Margarete Kotrnetz, of Herkimer, who left early in April for service with the Army Medical Corps, were honored

\* Asterisk indicates that item is from a local newspaper.

at a farewell dinner given by members of the Herkimer Academy of Medicine.

Both were presented with traveling cases by Dr.

D. F. Aloisio, president, on behalf of the group. Dr. Hans Kotrnetz is a captain and his wife is a first lieutenant.\*

### Jefferson County

In April there appeared the first issue of the Northern New York Medical Annual, published by the Jefferson County Medical Society at Water-

Members of the editorial board are Drs. Howard N. Cooper, chairman, Charles A. Prudhon, Sutherland E. Simpson, William W. Hall, George F. Bock, and Garner Scullard, all of Watertown.

In the initial editorial Dr. Cooper writes, in part: "The first issue of a medical publication from Northern New York is, we hope, no trial balloon. We expect a yearly appearance of this magazine, and we hope each issue will exceed the previous one

in excellence. "The essential justification, or better, the vital need for such a feature in the professional life of this district is especially evident in these kaleidoscopic times. Life, for those of us who are relegated to carry on for the duration on the home front, is undergoing insidious and steady changes. These include technical, economical, social, and certainly our secretaries will agree, financial innovations. A proper consideration and lasting record of these changes should be made for us. We can then more clearly follow significant steps in the evolution of the present-day practice of medicine. This journal will likewise help to inform our absent members, who are equally concerned in knowing to what they will

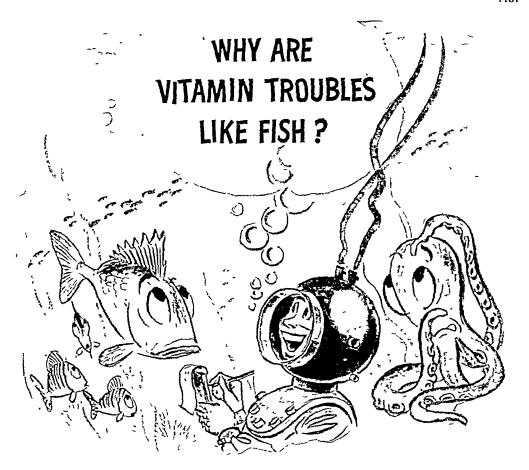
"The principal purpose of this publication is to establish its scientific decor by collecting papers written by component members. This will also written by component members. serve to stimulate other works to be written, and to provide an outlet for our season's orbit, no matter how humble or brief. Just as interesting and instructive medical cases are found in this County as anywhere. And, if we may be pardoned the frag-rance of a bouquet, we feel that most of them are handled and treated just as sagaciously as elsewhere.

A stated meeting of the county society and the Academy of Medicine of Brooklyn was held in MacNaughton Auditorium, Tuesday evening, April Kings County

The first speaker on the scientific program was Dr. Robert Elman, of St. Louis, Missouri, whose address was entitled "On the Intravenous Use of

Amino Acids." Dr. Elman is associate in surgery at St. Louis Children's Hospital and St. Louis Maternity Ho-

[Continued on page 1138]



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over 12 yrs.	years, incl.

Vitamin A	125%	166%
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	100%	
	100%	

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(Minimum daily requirements for Niacin Amide or need in human nutrition for Vitamin  $B_{\delta}$  or Paniothenic Acid not established.)

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[Continued from page 1136]

pital, director of surgery at Homer Phillips Hospital. St. Louis, and associate professor of surgery at Washington University in St. Louis.

Dr. I. M. Tarlow, of Brooklyn, spoke on "Plasma

Clot Suture of Peripheral Nerves.

Dr. Tarlow is a neurosurgeon at Jewish Hospital in Brooklyn, instructor in neurosurgery at New York Medical College, and attending neuropathologist at Beth Israel Hospital.

Dr. Irving J. Sands, acting president of the Brooklyn Jewish Hospital's medical board, spoke of socialized medicine as "racketeering in human lives" in an address delivered at the hospital's forty-second annual meeting held April 2 in the Louria Memorial Hall. He said that passage of the Wagner-Murray-Dingell bill would nullify the work of the medical profession, would necessitate politics in medicine, and would eventually result in a totalitarian form of government. Medicine is already making its own plans for the future, he said, with the relocation of physicians and the rehabilitation of those returning from service.

Other speakers were Lt. Col. Harold G. Hoffman, former Governor of New Jersey, former Justice Edward Lazansky, Mr. Charles Jaffa, and Mrs. Clarence G. Bahrach.\*

### Monroe County

Dr. James Knight Quigley, of Rochester, is this year's recipient of the Albert D. Kaiser Medal, an annual award presented by the Rochester Academy of Medicine for outstanding public service in medi-

Dr. Quigley's work on the Committee on Maternal Welfare of Monroe County and his service as a medical examiner for the State Board of Regents are among his contributions which won him the honor.

### Nassau County

The regular monthly meeting of the county society was held on April 25 at 9:00 P.M in the auditorium of Mercy Hospital in Rockville Centre.

The scientific session included an address, chiatric Rehabilitation-New Methods in Military Psychiatry as It Affects the Treatment of Such Casualties in Training and Combat," by Maj. Benjamin H. Balzer, (MC), chief, Neuropsychiatric Service, Station Hospital, Mitchel Field, and a motion picture, "Psychiatry in Action."

Dr. J. A. Mayer has been discharged from the Army and is practicing again in Freeport.

Dr. David S. Dooman has also been discharged from the Army and is practicing again in Garden City.

### New York County

An address entitled "Program of the Committee for Recruitment and Education of Practical Nurses of The Practical Nurses of New York, Inc.," was of The Practical Nurses of New York, Inc.," was one feature of the county society's monthly meeting held on April 24 at the New York Academy of Medicine.

The remainder of the scientific session consisted of a "Symposium on Applied Therapeutics." The speakers and their subjects were: "Treatment of Tropical Diseases," by Dr. Harold W. Brown, professor of parasitology, DeLamar Institute of Public

Health, College of Physicians and Surgeons, Columbia University; "Atypical Pneumonias" by Lt. Comdr. Frank L. Horsfall, Jr., (MC), USNR, of the U.S. Naval Research Unit, Hospital of the Rockefeller Institute for Medical Research; and "Chemotherapy," by Maj. Norman Plummer, (MC), of the War Department, Service of Supply, Board for the Investigation of Epidemic Diseases, U.S.A.

Dr. Sophia Kleegman, assistant clinical professor of obstetrics and gynecology of the New York College of Medicine, president of the Women's Medical Association of New York City, and charter member of the American Association for Marriage Counsellors, was guest speaker at a recent luncheon meeting of the Albany Maternal Guidance Association.

The Tau Chapter of the Nu Sigma Nu medical fraternity will sponsor its annual, open Walter L. Niles Memorial Lecture on May 18, at 8:00 P.M. in the Cornell University Medical College Auditorium, 1300 York Ave., New York City. Lt. Col. Loyal Davis, M.D., Ph.D., professor of surgery since 1932 at Northwestern Medical College, will talk on his "Experiences as Consultant in Neurological Surgery in the European Theatre of Operations.

Lt. Col. Davis was consulting neurological surgeon to the present American Expeditionary Forces until his return to the United States this year. In this capacity, he has done research on high-altitude frostbite and related aviation diseases peculiar to this war. During this time he was also a member of the Anglo-American Surgical Com-mission that toured Russia to study Russian military-medical methods and organization.

Dr. Davis is well known for his important contributions in the field of nerve grafts and nerve regeneration. In addition, he is editor of the Journal of Surgery, Gynecology, and Obstetrics, and author of several medical textbooks, including Peripheral Nerve Injuries and Neurological Surgery.

for which The annual Niles public lectures, prominent outside medical workers are invited to Cornell, are held as a tribute to the late Walter L. Niles, the past, beloved dean of Cornell University

Medical College.

#### Onondaga County

The Edward C.Reifenstein professorship of medicine will be set up through a stipulation in the will of the late Horace White, former governor of New York. After establishing life trust funds of \$200,-000, the will provides that three-fourths of the residuary estate shall go to Cornell University at Ithaca and one-fourth to Syracuse University College of Medicine, the latter to be known as the Horace White Fund and the income to be used to pay the salary for the Reifenstein professorship. The \$200,000 set up for life trusts will ultimately go to the two universities in their proportionate shares.

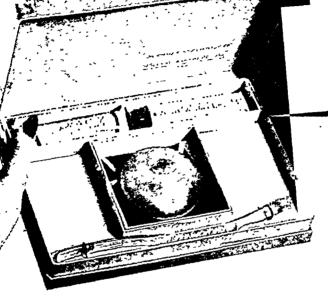
Ontario County

andaigua Medical Society on April 13 at a meeting in the Canandaigua Hotel. Dr. Malcolm R. Blakeslee, of Shortsville, read a paper entitled "Fever in Children."\* Dr. Frederick C. McClellan was host to the Can-

[Continued on page 1140]

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[Continued from page 1138]

### Oswego County

"Medicine in the Postwar World" was the title of an address given by Dr. K. Wood Jarvis before the Oswego Rotary Club on April 4.\*

### Queens County

The April stated meeting of the county society was held in conjunction with the staffs of Queens

General Hospital and Triboro Hospital.

The entire program was dedicated to the United States Naval Hospital at St. Albans, in appreciation of that institution's hospitality to the Second District Branch of the Medical Society of the State of New York on November 17, 1943. The sessions were held on April 25.

The first activity, at 2:30 p.m., was a tour of Queens General and Triboro hospitals, which included observation of pathologic and roentgenologic demonstrations. A clinic was held in the auditorium of Triboro Hospital from 3:30 to 6:30 p.m., at which short papers were read by staff members. A dinner followed the clinic session, and the meeting of the county society took place at 9:00 p.m.

The program presented during the tour of the hospitals included: "Exhibition—Forms of Intereranial Injury," by Drs. Alfred Angrist and Richard Grimes; "Newer Methods in Diagnostic Roentgenologs," by Drs. Irving S. Startz and Mortimer Camiel; and "Demonstration of Lung Pathology," by members of the staff of Triboro Hospital.

The program for the clinical session was as follows: "Parathyroid Tumors," by Dr. Charles B. Livoti; "A New Method of Closed Treatment for Post-Lip Fracture of the Tibia," by Dr. Frederick C. Courten; "Traumatic Epilepsy," by Dr. Frederic Wertham; "Incisional Hernia," by Dr. Louis J. Morse; "Precancerous Dermatoses," by Dr. Ida J. Mintzer; "Influenzal Meningitis," by Dr. Henry A. Reisman; "Liver Function Tests in the Differentiation of Medical and Surgical Jaundice," by Dr. Harry LeVeen; and "Torsion of the Spermatic Cord," by Dr. Leo Goldberg.

Three speakers participated in the final program, which was the regular meeting of the county society. Dr. Nicholas D. Tiscione spoke on "Postoperative Nutrition." Dr. Morris S. Bender had as his topic "The Pathways of Infection in Sinus Disease," and "Indications and Results of Lobectomy and Pneumonectomy—Analysis of 100 Consecutive Cases" was the title of a paper by Dr. Herbert C. Maier.

"The Recognition, Management, and Treatment of Nervous Disorders by the General Practitioner," by Frederic Wertham, M.D., a short course of three lectures, is being given on three consecutive Friday afternoons, May 12, 19, and 26, under the auspices of the county society.

Dr. F. Wertham is the director of the Mental Hygiene Clinic, Queens General Hospital, and senior psychiatrist of the New York Department of Hospitals. In the past he has been chief resident psychiatrist at Johns Hopkins Hospital and associate in psychiatry at the Johns Hopkins Medical School; and director of the Mental Hygiene Clinic at Bellevue Hospital. He was assistant professor of psychiatry at New York University for six years, is the author of The Brain as an Organ, and has testified as psychiatric expert in a number of important trials of the past nine years.

### Schenectady County

The monthly meeting of the county society for May was held on May 2 at the Glenridge Sanitarium in Schenectady.

in Schenectady.

The speaker, Dr. William F. Reinhoff, associate professor of surgery at Johns Hopkins University, had for his topic "Indications for Pneumonectomy."

#### Seneca County

To protect the health of their employees, Seneca County industries have begun a program during which 400 workers at Evans Chematics plant in Waterloo and 275 workers at the Seneca Knitting Mills in Seneca Falls, were given the tuberculin "patch" test.

Thirty-three per cent of these showed positive

results and will be given the x-ray test.

This program, which has the endorsement of the Public Health Committee of the Seneca County Board of Supervisors, and the County Medical Society, is under the direction of Miss Ruth Page, executive secretary of the Seneca County Committee on Tuberculosis and Public Health. The three county nurses are assisting.\*

#### Steuben County

Members of the county society heard a talk by Dr. Stockton Kimball, of Buffalo, at the regular quarterly meeting on April 13. Dr. Kimball's topic was "Malaria, the Dysenteries, and Filariasis."\*

Deaths of New York State Physicians

Herbert L. Lake  Ethel Leonard Samuel G. Rosenfeld Vincenzo Savoia Clifford A. Schmiesing William S. Smith Walter W. Strang  Herbert L. Lake Univ. So. Calif. Lausanne Naples Ja St. Louis P. & S., N.Y. A. L. I. C. Hosp.: Johns Hopkins Ja	anuary 30 April 12 Sebruary 11 Anuary 19 Anuary 21 April 18 April 14 Anuary 1 Anuary 1 April 4	Niagara Falls Fulton Tompkinsville Brooklyn Brooklyn Salamanca Brooklyn Manhattan Brooklyn Schenevus
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### Hospital News

### Nurses from Other American Republics to Study Here

EIGHTEEN sisters from eight American republics will reach this country in May for a oneyear specialized training course in nursing sponsored by the Catholic Hospital Association, in cooperation with the Institute of Inter-American Af-The institute is an agency of the Office of Inter-American Affairs here.

The first course, scheduled to begin on May 15, will find two representatives each from Costa Rica, Chile, Ecuador, El Salvador, Nicaragua, Peru, and Venezuela. Mexico will be represented by four

students.

The sisters will take a preliminary orientation course of approximately two months' duration at the headquarters of the Catholic Hospital Association in St. Louis, Missouri, before going on to a four months' in-service training course at various hospitals in the United States. Assignments to hospitals will be made by the Institute of Inter-Ameri-

can Affairs in accordance with each student's specialized field.

At the conclusion of the first four month's inservice training period, the sisters will be brought together for a joint résumé of the work which they have completed. After a month spent in comparing notes, the students will receive an additional four months' training at other hospitals. A final onemonth consultation before returning to their respective countries will complete their course.

Specialized fields covered by the program include general nursing, nursing education, admissions, records, dietetics, x-ray treatments, physical therapy, and general hospital administration. The program is made possible by a special grant of the Institute of Inter-American Affairs, and will be supplemented by a second course, beginning on September 1, when sisters from additional American republics will come

to this country for training.

### Lecture Series Marks Memorial Hospital's Sixtieth Anniversary

THE Challenge of Cancer" is the title of a series of lectures in May, presented in celebration of the sixtieth anniversary of Memorial Hospital for the Treatment of Cancer and Allied Diseases, New York City. The meetings take place in the Auditorium at Memorial Hospital, on Saturdays at 11:00 A.M.

On Saturday, May 6, Harry Pelham Robbins, president of Memorial Hospital, spoke on the subject "Sixty Years of Service." Dr. Fred W. Stewart, pathologist and acting director of Memorial Hospital, spoke on "The Development of Cancer Diagnosis." "The Development of Cancer Treatment" was the lecture delivered by Dr. George T. Pack, attending surgeon at Memorial Hospital.

On May 13 Edward C. Delafield, treasurer of the hospital, gave a talk called "The Way the Cancer Problem Appears to Me, a Layman." Dr. Lloyd F. Craver, attending physician at Memorial Hospital, spoke on "The Organization of a Modern Cancer

Hospital."

"How to Reduce Cancer Mortality" was the subject discussed by Dr Clarence C. Little, managing director of the American Society for the Control of Cancer.

The series will be continued on Saturday, May 20, with "The Years That Lie Ahead" by Reginald C. Coombe, chairman of the executive committee of Memorial Hospital. Dr. Carl Voeglin, former director of the National Cancer Institute, will then speak on the topic, "Whither Cancer Research." Dr. Jules C. Abels, assistant physician at Memorial Hospital, will deliver the lecture "Making the Cancer Patient Safe for Treatment." The time is 11:00 A.M.

The series will alone or Saturday May 27 with

The series will close on Saturday, May 27, with tours of the Hospital starting at 10:00 a.m., 10:30 a.m., and 11:00 a.m. The tours will start in the solarium and will proceed through the operating suite, the private floor, the semiprivate floor, the laboratory floor, the x-ray department, and the dietary department.

dietary department.

### Army Dedicates Hospital in Atlantic City

ENGLAND GENERAL HOSPITAL, where hundreds of soldiers are recovering from wounds GENERAL HOSPITAL, and sickness, was dedicated April 29 at ceremonies attended by Army officers and civilian officials.

The largest hospital of its kind in the United States, England General Hospital is composed of five Atlantic City hotels and has a capacity for 4,760 patients. The hotels are Haddon Hall, Chalfonte, Traymore, Dennis, and Colton Manor. The Army has made them into an institution where soldiers help the process of healing by doing things for themselves.

Among the three generals at the exercises was Lt. Gen. Brehon B. Somervell, commanding general of the Army Services Forces. He said: "It's a matter of pride to the Army Medical Corps, and it should be a matter of satisfaction to all Americans, to know that we will have ready and waiting adequate facilities for all our battle casualties."

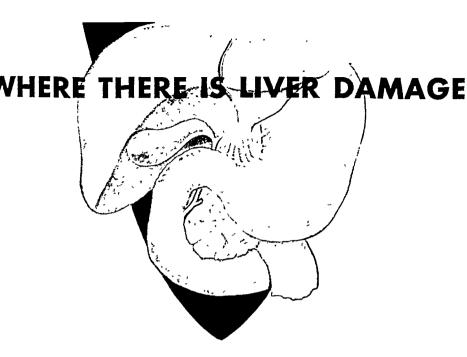
General Somervell said that the Army's sixty-

three large general hospitals and other medical facilities have enough beds to care for the total number of wounded anticipated in "the coming compaign." Other speakers included Gen. Thomas A. Terry,

of the Second Service Command, of which the hospital is a post, Maj. Gen. Norman T. Kirk, Surgeon General of the Army; Mayor Thomas D. Taggart of Atlantic City, and Governor Walter E. Edge.

England General Hospital was named in honor of the late Lt. Col. Thomas Marcus England, a hero of the yellow fever experiments in Cuba in 1900. He volunteered, under Maj. Walter Reed, to stay for twenty days in a bed previously used by a yellow fever victim and by doing this he helped to prove that yellow fever was transmitted by mosquitoes and not by contact with an infected person or ob-Colonel England was executive officer of the Fifth Service Command's medical branch when he died at Columbus, Ohio, on July 23, 1943.

[Continued on page 1144]



In hepatic congestion, in toxemias, in gall-bladder disease, in surgery—whenever liver damage is likely to occur—the hepatic cell stimulant action of Sorparin is desirable.

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[Continued from page 11421

### Improvements

A gift for postwar construction of a research laboratory at Mount Sinai Hospital in New York City has been announced by Waldemar Kops, its acting president.

The donor was Dr. A. A. Berg, president-elect of the International College of Surgeons and consulting surgeon to the hospital. The gift was in memory of his brother and medical associate, Dr. Henry W. Berg, who died in 1938, at the age of 79. Neither the donor nor the hospital authorities would divulge the amount of the fund.

Construction of the unit, to be known as the Henry W. Berg Research Laboratory Building, will be started as soon after the war as material and labor become available. The site will be among Mount

Sinai's group of eighteen buildings.\*

Inspection of the enlarged and renovated kitchen of White Plains Hospital featured the monthly meeting of the board of governors on February 21. A. J. Purdy, first vice-president and chairman of the building and grounds committee, who directed the improvement, led the inspection party.

The cost of \$22,500 was provided from unre-stricted invested funds, Mr. Purdy announced.

New features include a separate kitchen where special diets are prepared and student nurses are taught dieteties, a soundproof dishwashing room, and expanded refrigeration facilities. New equipment includes a pie stove, three-tiered vegetable steamer, a potato peeler, and two steamtables.\*

Plans for a new Training School for Nurses at Bellevue Hospital, to cost \$3,500,000, were filed on March 15 with the New York City Department of Housing and Buildings. The project, which will be one of the first units in the Hospital's general reconstruction program after the war, will occupy the entire block bounded by First Avenue and the East River from Twenty-fifth to Twenty-sixth Street, just south of the main Bellevue buildings.

The block contains the present training school, a nurses' residence, and other buildings. These will be displaced by the new school, residences, and a garage, according to Dr. Edward M. Bernecker, Commissioner of Hospitals, who said that the new institution and residential quarters would be part of the hospital's postwar building development.

Plans for other building projects in the Bronx and Brooklyn were also filed.\*

#### At the Helm

Colonel George Baehr, former president of the medical board of Mount Sinai Hospital in New York City, clinical professor of medicine at Columbia University, and until recently Chief Medical Officer of the U.S. Office of Civilian Defense, has resumed his duties as attending physician to the First Medical Service of Mount Sinai and will undertake new duties as director of clinical research.

Dr. Isidore Snapper, Dutch scientist, formerly on the faculties of the University of Amsterdam and the University of Peiping, and more recently Medical Adviser to the Government of the Netherlands West Indies, has been appointed attending physician to the Hospital's Second Medical Service and director of graduate medical education.

Dr. J. Moss Beeler has been appointed hospital administrator of the Flower and Fifth Avenue Hospitals in New York City. Since his graduation from the Medical College of the University of Louisville, Dr. Beeler has been associated with hospital administration and mental hygiene. He is a Fellow of the American College of Hospital Administrators and the American Psychiatric Association. He was formerly superintendent of Grady Hospital, associate professor of psychiatry at Emory University School of Medicine. Between his appointments at Emory and the New York Medical College he was Director of the Department of Mental Hygiene of the Mississippi State Hospital.

Dr. Willard C. Rappleye, dean of the College of Physicians and Surgeons, was re-elected chairman of the Research Council of the Department of Hospitals of New York City. Commissioner Edward M. Bernecker was re-elected vice-chairman; Dr. Alfred E. Cohn, of Rockefeller Institute, treasurer,

and Dr. Walter G. Lough, president of the medical board of Goldwater Memorial Hospital, secretary. Dr. Thomas I. Price, general medical super-intendent of the department, was elected assistant secretary, and Gordon T. Broad, deputy commissioner of hospitals, was named assistant treasurer.\*

Appointment of Dr. Bernard T. Brown, senior resident physician at the Onondaga Sanatorium in Syracuse, to the post of superintendent to succeed Dr. Eugene Bogardus, has been announced by Dr. H. Burton Doust, chairman of the board of managers.\*

S. Berton Geistner, D.D.S., has been appointed director of the dental department of Brony Hospital.

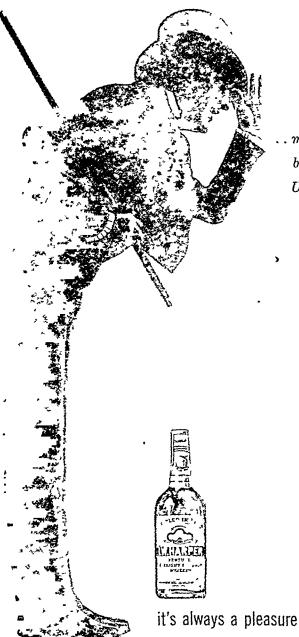
TT of -. Lasham alasted president of the ling to an an-Αc

Mr. Hoffman succeeds Herman S. Dachrach.\*

Dr. William Y. Hollingsworth, medical officer-in-charge of the U.S. Marine Hospital at Clifton, has been transferred to the New Orleans Marine Hospital as director.\*

[Continued on page 1146]

\* Asterisk indicates that item is from a local newspaper.



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[Continued from page 1142]

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intendent of the department, was elected assistant secretary, and Gordon T. Broad, deputy com-missioner of hospitals, was named assistant treas-

### At the Helm

Colonel George Baehr, former president of the medical board of Mount Sinai Hospital in New York City, clinical professor of medicine at Columbia University, and until recently Chief Medical Officer of the U.S. Office of Civilian Defense, has resumed his duties as attending physician to the First Medi-cal Service of Mount Sinai and will undertake new duties as director of clinical research.

Dr. Isidore Snapper, Dutch scientist, formerly on the faculties of the University of Amsterdam and the University of Peiping, and more recently Medical Adviser to the Government of the Netherlands West Indies, has been appointed attending physician to the Hospital's Second Medical Service and director of graduate medical education.

Dr. J. Moss Beeler has been appointed hospital administrator of the Flower and Fifth Avenue Hospitals in New York City. Since his graduation from the Medical College of the University of Louisville, Dr. Beeler has been associated with hospital administration and mental hygiene. He is a Fellow of the American College of Hospital Administrators and the American Psychiatric Association. He was formerly superintendent of Grady Hospital, associate professor of psychiatry at Emory University School of Medicine. Between his appointments at Emory and the New York Medical College he was Director of the Department of Mental Hygiene of the Mississippi State Hospital.

Dr. Willard C. Rappleye, dean of the College of Physicians and Surgeons, was re-elected chairman of the Research Council of the Department of Hos-

urer.\*

Appointment of Dr. Bernard T. Brown, senior resident physician at the Onondaga Sanatorium in Syracuse, to the post of superintendent to succeed Dr. Eugene Bogardus, has been announced by Dr. H. Burton Doust, chairman of the board of managers.\*

S. Berton Gerstner, D.D.S., has been appointed director of the dental department of Bronx Hospital.

Herman Hoffman has been elected president of the Adelphi Hospital of Brooklyn, according to an announcement by the Board of Trustees.

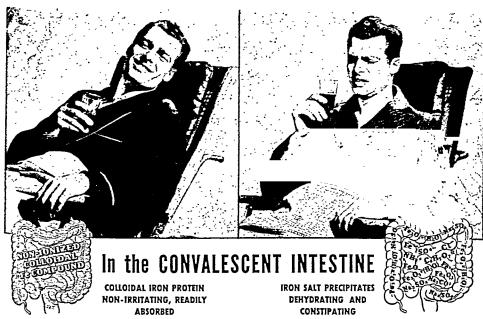
Mr. Hoffman succeeds Herman S. Bachrach.

Dr. William Y. Hollingsworth, medical officer-in-charge of the U.S. Marine Hospital at Chiton, has been transferred to the New Orleans Marine Hospital as director.\*

[Continued on page 1146]

\* Asterisk indicates that item is from a local new-paper.

## COLLOIDAL // IONIZABLE IRON



IN CONVALESCENCE, the intestine plays an important role as an absorption center for nutriment, but it is characteristically subject to upsets. For these reasons, the intrinsic advantages of colloidal iron over ionizable iron in hematinic therapy are especially significant. Iron salts (sulphates, citrates, etc.) are ionized by the gastric juice. In the alkaline medium of the intestine they form precipitates which are not readily absorbed and are dehydrating and constipating. OVOFERRIN, on the other hand, is celloidal iron-protein. It is not in ionic form, and is not broken up by the digestive juices. It

remains assimilable since nutritive material in colloidal form is readily absorbed from the intestine. As it is fully hydrated, it *cannot* cause dehydration and constipation. It contains no acid radicle to irritate. Such is the biochemical basis for OVOFERRIN'S world-wide reputation as "the rapid blood-builder."

In addition, OVOFERRIN is odorless and tasteless, contains no sugar, does not irritate the stomach, and does not stain or dissolve tooth enamel. Prescribed in 11-oz. bottles—one table-spoonful in a wine glass of milk or water at meals and bedtime:



### Prescribe OVOFERRIN

### COLLOIDAL IRON-PROTEIN BLOOD-BUILDER

In Secondary Anemia, Convalescence, Pregnancy,
"The Pale Child," and Run Down States

A. C. BARNES COMPANY, NEW BRUNSWICK, N. J.

[Continued from page 1144]

Dr. Edward J. Cristiano, formerly of Troy, has been elected president of St. Luke's Hospital at Pittsfield, Massachusetts. He succeeds Dr. Charles F. Fasce.\*

Dr. James C. Boland, a native of Troy, now assistant district health officer at Binghamton, is to be named Troy health officer to succeed Dr. James H. Flynn, who will retire May 15.\*

Arthur L. Zerbey has been re-elected president of the Mount Vernon Hospital Association.\*

Directors of the new Syracuse General Hospital have received a check for \$37,250 from the Federal Works Agency regional office in New York—the first payment of the government's share in the cost of crecting the new nurses' home.

Under the terms of the Lanham Act, the Federal

Works Agency agreed to pay \$149,000 of the total \$174,000 needed to provide the new building.\*

According to the Syracuse Post-Standard of March 3, three of the nine interns at the Syracuse University Hospital of the Good Shepherd are women. They are Drs. Katherine E. White, Margaret Newcomb Bird, and Helen-Ann Garcia.

The sixth class of hospital library volunteers have received certificates at the United Hospital Fund office in New York City and were assigned to book service to patients in voluntary and municipal hospitals. The forty-two members of the class bring the total of certified volunteers in this work to three hundred and fifty, a number that must be increased still further if the libraries are to remain open during the summer.

Miss Florence L. Schieren, chairman of the committee on hospital libraries, announced that the course consists of six lectures, twenty-one hours of practice training, and sixty hours of service. Volunteers give a minimum of two half-days weekly.\*

### **Newsy Notes**

The Jacob H. and Emma W. Schoonmaker Fund has been created under a gift of one million dollars to the United Hospital Fund of New York from a trust created in 1937 by the late Jacob H. Schoonmaker, of New York. The income from this sum is to be added to the annual collection made by the United Hospital Fund and distributed among the eighty-seven hospitals and homes participating. The remainder of the original Schoonmaker trust is divided equally among the Community Service Society of New York, the New York Foundling Hospital, Fordham University, and the Kingston Hospital, Kingston.

The medical library of Grasslands Hospital, in Valhalla, has recently moved to new quarters and now provides a pleasant reading room as well as a large stack room. More than 60 medical journals are available. The bound journals number 800 volumes and the major journals are all available for more than ten years. The Quarterly Cumulative Index is complete. In addition more than 2,000 particulates the said meangraphs are cured.

medical textbooks and monographs are owned.

The library is open from 9:00 A.M. until 5:30 P.M. seven days a week. Physicians are always welcome. A list of the journals carried will be supplied on request, or the librarian, Mrs. Katherine Grady, may be consulted by telephone.

Part of Beekman Hospital's \$600,000 contribution to the Fourth War Loan has been allocated by the United States Treasury Department to buy one of the Army's new-type hospital railroad cars, it was announced yesterday by Howard S. Cullman, president of the hospital.

Beekman will be the first New York hospital to be credited with purchase of one of the cars, estimated by the War Finance Committee to cost \$70,000 each. Other portions of the hospital's \$600,000 in bonds will be credited to the purchase of a hospital, hospital plane, equipment for a hospital ship, and a fleet of ambulances.\*

St. Joseph Hospital in Syracuse, the first hospital in Central New York, constructed in 1869, celebrated its seventy-fifth anniversary on April 12.\*

The War Production Board regional offices throughout the country are asking for the cooperation of every hospital, every doctor, every medical and dental unit, in the scrap paper program. They are requested to dispose of books, magazines, newspapers, records, wrappings, cartons, advertising literature, and bulletins. They are asked to ferret out every last scrap or shred of paper to go into the salvage paper drive.

Special hospital rations to supplement the standard field rations of the armed services have been developed by the Quartermaster Corps for use in field hospitals overseas. The ration is sufficient for twenty-five men and consists of canned fruits, fruit juices, dehydrated soup, coffee, sugar, and evaporated milk. Each of the components is packed in metal containers and the entire ration is packed in a wood box marked with the Red Cross insignia. Each box weighs about 60 pounds so that it can easily be transported even to hospitals in the fighting zones.—Modern Hospital, March, 1944.

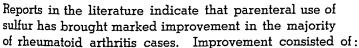
The New York Medical College has recently been the beneficiary of two gifts from Mrs. John Eastman Wilson in memory of her late husband. Dr. Wilson was professor of neurology and was associated with the College from 1902 to 1918.

[Continued on page 1148]

### CHRONIC ARTHRITIS

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### PARENTERAL SULFUR THERAPY



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Sulisocol is an injectable, reversible colloid sol—supplying sulfur in an especially assimilable form, to replenish the loss of body sulfur. Sulisocol acts as a detoxifying agent and as a non-specific stimulus to defensive reactions of the body. It may be safely used intravenously or intramuscularly. Boxes of 12, 25 and 100 ampuls. Also Individual Treatment Package of three 2 cc., two 3 cc. and twelve 5 cc. ampuls. Complete 8 weeks' treatment \$8.75 by mail or through dealer.

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tains 1½ grs. of Theophylline Sodium Acetate, ¼ gr. of Ephedrine Sulfate and ¼ gr. of Phenobarbitol Sodium. Available on prescription only in bottles of 100 capsules.

\*A New Type of Medication to be used in Bronchial Asthma and other Allergic Conditions.—New Eng. J. Med. 223:843-846, 1940.

REWER & COMPANY, INC. Worcester

Pharmaceutical Chemists Since 1852

Samples on request.

w orcester Massachusetts [Continued from page 1146]

One gift of \$100,000 has been designated as a student loan fund for needy medical students. The other gift of \$10,000 has been added to the endowment of the Department of Surgery.

The formation of a Hospital Circuit, over which specially selected entertainment units will travel at least once every fortnight to take new shows to men in Army and Navy hospitals throughout the country, has been completed by USO-Camp Shows, Inc. The circuit was organized in cooperation with the Service Division of the War Department to provide additional divertissement for the men.

The group is headed by well-known artists of the stage, radio, screen, and concert fields. stage, radio, screen, and concert licius. Alleady making the rounds are four units, the personnel of which includes Ed Wynn, Gene Kelly, Wini Shaw, Leslie Brooks, Trudy Marshall, Diana Lure, Paul Lavarre, Pat Hill, Michael Olivierre, Charley Stuart, Frank Sully, Lynne Carver, Russell Delagar Truckhon.\*

mar, and Sidney Tuschner.\*

Lucius Nathan Littauer, of New York City, who died on March 2, bequeathed \$250,000 to Nathan Littauer Hospital in Gloversville.

The U.S. Naval Hospital at Sampson celebrated its first birthday on February 27.

On March 15 Northern Westchester Hospital opened a campaign to raise \$500,000 for the enlargement and improvement of the hospital.

Dr. Oswald S. Lowsley, of New York City, recently returned from a tour of inspection of United States naval hospitals in his capacity as honorary consultant to the Medical Corps of the United States Navy. The tour included fourteen naval hospitals in the Middle West, on the Pacific Coast. and on the Gulf of Mexico. In addition to making his inspection Dr. Lowsley addressed the medical officers of the various hospitals on "The Diagnosis and Treatment of Various Traumatic and War Injuries of the Organs of the Genital and Urinary Tracts."

A total of \$554,369 in Fourth War Loan subscriptions was raised by employees of New York's municipal hospitals, Dr. Edward M. Bernecker, Commissioner of the Department of Hospitals, reported.

This compares with \$353,097 raised by the hospital employees during the Third War Loan.

Greenpoint Hospital employees headed the list, with a total of \$192,143. Other leading totals were: Metropolitan Hospital, \$55,600; Coney Island Hospital, \$40,113; Fordham Hospital, \$35,801; Bellevue Hospital, \$30,901; and Kings County Hospital, \$18,558.

### MEDICAL AND SURGICAL RELIEF COMMITTEE DONATES 1,000TH KIT TO NAVY

The Medical and Surgical Relief Committee of America recently donated its 1,000th small-vessel medical kit, designed for use on board sub-hunting, Joseph P. Hoguet, medical director of the Committee, turned over the 1,000th emergency medical set to Capt. Ernest R. Eaton of the Navy Medical Supply Corps at a brief ceremony at Committee headquarters in New York City. This kit and the 1,001st were earmarked for a Landing Craft Tank Detachment of Group 44, Flotilla 15, U.S. Navy, in answer to a request from the Commanding Officer for medical supplies.

The donation of the 1,000th small-vessel casualty kit by the Committee to the Navy celebrated the first anniversary of this special project. March, flooded with requests from pharmacist's mates and medical and ship commanding officers of the Coast Guard and the Navy, the Medical and Surgical Relief Committee, a philanthropic organization dedicated to medical aid, launched a program to send medical equipment to small Navy ships that asked for and needed immediately these vital supplies.

Among those ships that appealed to the Com-Dr. Hoguet listed sub-chasers, motortorpedo boats, destroyer escorts, rescue ships, mine sweepers, gunboats, and landing craft for tank and

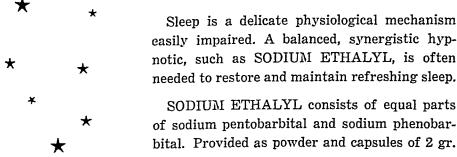
Hundreds of grateful letters in the Committee files testify to the urgency of the Committee's work to supplement the medical allotment of certain Navy vessels, declared Dr. Hoguet. Specially designed by Committee physicians for

small doctorless craft, the kits are equipped to give professional on-the-spot treatment to the ill or injured until they can be safely transferred to a base hospital, Dr. Hoguet explained. To enable pharmacist's mates and nonmedical officers to make effective use of its contents, detailed instructions are included in each set. In addition to the bandage, instrument roll, and essential drugs, the kit contains a shipwreck unit—a simple fishing rig, dried bait, metal signaling mirrors, and a sturdy floating knife. Since the kits are easily carried and packed for immediate use, they can be rushed directly to the casualties in emergencies or during combat.

The Committee's Navy program is but one phase of its medical relief work. To date, more than \$620,000 worth of medical, dental, and surgical supplies have been donated to the fighting forces of the Alliant to the fighting forces of the Alliant to the fighting forces of the f the Allies, to war-zone hospitals, needy welfare groups, medical missionaries, and community nurseries throughout the free world.



# THE BALANCE in Javor of SOUND SLEEP



INDICATIONS: Insomnia due to fatigue, drug addiction or withdrawal, alcoholism, simple nervousness and irritability; and in hypertension to allay apprehension.

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### Woman's Auxiliary

### To the Medical Society of the State of New York

### County News

Albany.—The auxiliary members have been taking an active part in selling War Bonds. Red Cross work has also been one of their pastimes. A silver tea was held for a Red Cross benefit. During the year many speakers have been heard. Many of the meetings have been open to the public. The war against cancer is also under way. Mrs. James S. Lyons has been county president this year.

Broome.—At the March meeting, the Nurses' Glee Club of the Charles S. Wilson Memorial Hospital, Johnson City, sang several selections. Mr. Kenneth Van Cott spoke on "Jewels." He displayed uncut stones and pieces of jewelry. At the April meeting, at Our Lady of Lourdes Memorial Hospital in Binghamton, Capt. Nicholas Klimow talked on the war and of the people "down under." Lieutenants Novak and Blazicek also spoke. A silver tea was held on April 26, at the home of Mrs. John D. Bowen. In May, at a dinner meeting, the guests will be the husbands of the members and the wives of the men in service. At the annual meeting a luncheon will be served and annual reports will be given, followed by election of officers.

Cattaraugus.—Five business meetings were held this year. The speakers for the meetings were Mrs. M. McIlnay, on the subject, "The Wife of an Army Doctor"; Dr. C. A. Greenleaf spoke on medical advancement; Miss Johanson discussed problems in hospitals today. A sunshine committee was organized to send flowers or cards to members who are ill. A contribution of ten dollars was sent to the Physicians' Home and a donation was made for Christmas flowers for Rocky Crest Tuberculosis Sanitorium. The members had a booth for the Third War Loan Drive. Every member is giving of her time to war work. Mrs. J. A. Wintermantel delivered a baby at the County Home, when her husband was unable to attend the patient.

Cayuga.—Two "camperships" for Girl Scouts were financed. The members mended garments for the children at the Convalescent Home. Snacks were provided for the student nurses' kitchenette. Two legislative meetings were held; the Honorable James Chase and Dr. Cornelius McCarthy were the speakers. Mrs. John Hamil, a former teacher in China, spoke on the health problems of that country. Dr. Wm. Dorr spoke on the health problems of the Army and Navy both in this country and in foreign stations.

Chautauqua.—Four meetings have been held during the year. At each meeting an interesting program was planned. The average attendance has been twenty. A monthly potluck supper meeting has been held at the homes of the members. The spirit of friendliness and cooperation has increased this year.

Columbia.—The April meeting was a luncheon meeting at the General Worth Hotel. Mrs. Hugh Henry is acting as president again this year.

The auxiliary carries on its list as honorary

members the wives of all members of the county medical society who are now in service.

The meetings are limited for the duration to April, June, October, and January. The members are all helping with Red Cross work and War Bond sales. The projects for the year have been to preserve the unity of the Auxiliary, to serve in the war effort in the most expedient ways, to familiarize the public with the Wagner-Murray-Dingell bill, and to obtain written pledges of protest to our Congressman.

Erie.—At the last meeting, Mrs. Walter Goodale, chairwoman of the Bond and Stamp Booth, reported that in the last Bond drive a quota of \$35,000 and \$1.489.70 in excess of it was raised.

\$1,489.70 in excess of it was raised.

Twice monthly the members meet at various homes to knit afghans for the Red Cross. The meeting in the homes of the Red Cross group shows a desire to contribute toward the comfort of the boys in service, and also strengthens the bonds of friendship and common effort in the group. Betty Wertz, the incoming president, is from Eric county.

Essex.—Two meetings were held this year. The members are all very busy with Red Cross work and first aid. The Wagner-Murray-Dingell Bill has been talked about whenever possible.

Fulton.—Monthly meetings have been held, usually in the homes of the members. Occasionally a dinner meeting was held elsewhere. The members have done their bit in opposing the pending medical legislation. The auxiliary has contributed to the Red Cross and the Physicians' Home and has purchased War Bonds. The members are active in work for the Red Cross, the Ration Board, and the Blood Bank.

Mrs. F. Leslie Sullivan, State President, was a

guest at a dinner meeting.

Herkimer.—Dr. Joseph S. Lawrence was one of this year's guest speakers. A fourth anniversary party was held in April at the Mohawk Valley Country Club.

The auxiliary is assisting the local librarian in furnishing books and magazines for the Herkimer Memorial Hospital. The members are also dis-

tributing flowers in the Hospital.

Installation of officers will take place at the final meeting in May.

Madison.—Auxiliary meetings have been held throughout the year. The public relations chairman represented the auxiliary in speaking to different clubs and groups of people about medical legislation.

Montgomery.—An interested audience listened to Dr. Joseph S. Lawrence's talk on socialized medicine. The medical society and the auxiliary entertained Dr. and Mrs. Lawrence at dinner.

Nassau.—The membership is 159. Forty-nine of the members are wives of men in service. The auxiliary has cooperated with the following county agencies: Mental Hygiene Committee at their [Continued on page 1152]





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**NEW YORK** 

[Continued from page 1150]

annual Institute held in Mineola, New York; Annual County Fair Health Exhibit; County Cancer Committee at their Annual Institute in Garden City.

Three box luncheons have been held. Six thousand hours of war work have been done by the members. Speakers have been provided to talk on legislation.

One hundred dollars has been donated to the Physicians' Home Fund. Twenty-four subscriptions to Hygeia were taken. Hygeia was also donated to eleven schools and to seventeen libraries.

Niagara.--Mrs. E. F. Dodge was elected president at the luncheon meeting held at Lockport Country Club. Dr. Grant Guillemont, president of Niagara County Medical Society, and Dr. Richard Sherwood, of Niagara Falls, were the afternoon speakers.

Oneida.—At the February meeting a luncheon was held at the Hotel Utica. Forty-five members were present to honor the members whose husbands are in service. The guest speaker was Maj. James McDaniel, chaplain of Rhodes General Hospital.

At the April meeting Dr. Newton J. T. Bigelow, deputy commissioner of Mental Hygiene of New York State, was the speaker. Mrs. Ward Millias was the guest soloist. Mrs. Donald Reals, president, presided.

Onondaga.—The meetings have been fewer than usual this year. At the March meeting Miss Edith Smith, Dean of the Syracuse University School of Nursing, spoke on the Cadet Nurses' Training Program. At the luncheon preceding the meeting seventy-five members were present. The charter members were honored and a report was given by Mrs. Francis R. Irving.

Queens.—The project for the year was the Fort . Totten Army Hospital. Mrs. William J. Godfrey visited the hospital and made the rounds of the wards distributing candies and smokes. were purchased and books also were furnished. The money raised at two card parties sponsored

The members are doing Red Cross work and are acting as air raid wardens. Mrs. J. M. Dobbins, the president, is a member of the blood donor "Gallon Club."

Rensselaer.—Dr. Joseph S. Lawrence addressed the auxiliary during the year.

Mrs. John J. Noonan and Mrs. Warren St. John were selected as delegates to the Annual Conven-

Saratoga.—The F. B. I. in action was the topic at the April meeting.

Mrs. Thomas E. Bullard is president.

A picnic is to be held in June. Mrs. F. Leslie Sullivan, State President, and Mrs. E. MacDonald Stanton were guests of the Saratoga County auxiliary recently.

A donation of money was made to the Red Cross and volunteer workers have been securing blood

Mrs. James J. McNaughton attended a legislative meeting in Albany.

Schenectady.—The March meeting was a luncheon meeting, at which Mr. C. Czyzewski spoke on Russian-American relations. The April meeting consisted of a luncheon, legislative discussion, and business. In May there will be the annual covereddish luncheon and election of officers. During the year the members have been engaged in the Third and Fourth War Loan Drives, the Red Cross Drive, part-time nursing at the local hospital, teaching home nursing, and as blood donors.

Suffolk .- Mrs. E. Raymond is the county president for 1944. Five general and executive meetings have been held.

A needlepoint footstool was donated by the president. The sum of \$78.90 was realized from the drawing on the stool. The necessary amount was added to make a \$100 donation to the Physicians' Home. An added amount of \$100 was sent to the State Treasurer for the Physicians' Home fund. The membership is thirty.

Mrs. William C. Carhart is the State Parliamen-

tarian.

Warren.—Mrs. F. Leslie Sullivan visited Warren County in November.

The annual meeting will be held May 17.

Most of the members have been engaged in war service activities. Many letters have been sent opposing the Wagner-Murray-Dingell bill.

Washington.—Ninety per cent of the members are engaged in war work. The county is carrying on.

### PUBLIC TO SEE FILM ON VENEREAL DISEASE

Prints of "To the People of the United States," a two-reel educational film dealing with the subject of venereal disease, will be made available for theatrical exhibition by the California State Department of Public Health, it was announced by Walter Wanger, who produced the film at the request of the United States Public Health Service. The latter agency withdrew its sponsorship of the film for general public showings after receiving a protest from the National Legion of Decency.

In announcing that the picture would be shown in New York and that the California Health Department would provide prints "to the many exhibitors who have indicated their desire to show the film," Mr. Wanger said he made the subject with public funds at the request of Dr. R. A. Vonderlehr, Assistant Surgeon General; that the script was supervised by Cmdr. L. E. Burney of the Surgeon General's staff, and that the picture had also met

with the approval of the Army and the Office of War

Information before the protest.

Mr. Wanger said the complaint of the Legion of Decency that the picture, "while essentially dignified and restrained, nevertheless fails to emphasize the evils of promiscuity," is not consistent with the film.

He added that "it presents its educational story around the remorseful figure of a bomber pilot who cannot go abroad with his crew because he has contracted a venereal disease."

Mr. Wanger said the picture did not violate the Production Code section on sex and hygiene, pointing out that the code "does not and was not intended to apply to educational government films." However, he declared the Production Code does apply to such matters in commercial pictures and "would therefore prevent 'the flood of lurid pictures' feared by the Legion of Decency."

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### Health News

### Winslow Succeeds Mustard on Public Health Journal

Professor C.-E. A. Winslow is the new editor of

the American Journal of Public Health, succeeding Harry Stoll Mustard, M.D. He took office in April.

Professor Winslow is Anna M. R. Lauder Professor of Public Health at Yale University. His identification with the American Public Health Association has been long and intimate. He served as chairman of its Committee on Administrative Practice for fifteen years and as chairman of the Committee on the Hygiene of Housing since its establishment seven years ago. He was elected president of the Association in 1926, and received a certificate for forty years of continuous membership and the Sedgwick Memorial Medal for distinguished service to public health in the same year, 1942.

He has written many articles, pamphlets, and books. Among his books are The Life of Hermann M. Biggs, The Evolution and Significance of the Modern Public Health Campaign, A City Set on a Hill, Health on the Farm and in the Village, and Health Under the "El." His latest book is The

Conquest of Epidemic Disease.

### National Society for the Prevention of Blindness Elects Officers

The election of Mrs. Eleanor Brown Merrill, executive director of the National Society for the Prevention of Blindness, as president of the National Health Council for 1944 was announced on March 15. She is the first woman to be elected president since the founding of the Council in 1921. Mrs. Merrill succeeds Dr. George S. Stevenson, medical director of the National Committee for Mental Hygiene.

Other new officers are: vice-president, Dr. Walter Clarke, executive director of the American Social Hygiene Association, who succeeds Dr. Kendall Emerson, managing director of the Natural Conference tional Tuberculosis Association; secretary, Professor Maurice A. Bigelow, president of the American Eugenics Society; Treasurer, Dr. William F. Snow, general director of the American Social Hygiene Association. Dr. G. Foard McGinnis, director of Medical and Health Services, American Red Cross, was elected to the Board of Directors.

The National Health Council is a clearing house of twenty voluntary health organizations. Council maintains a library whose facilities are used by research workers from all parts of the United States and, particularly, by students of medicine, nursing, and public health from nearby colleges and

universities.

The Library contains more than six thousand volumes and thirty thousand pamphlets dealing with public health sanitation, and related subjects; more than five hundred professional journals and technical periodicals are received regularly from all parts of the world. An annual guide is prepared for publication in the Book List of the American Library Association, and the library issues its own weekly bulletin, giving brief digests of current magazine articles pertaining to health matters.

Active member agencies in the National Health Council include the following: American Eugenics

Society, American Heart Association, American Public Health Association, American Red Cross, American Social Hygiene Association, American Society for the Control of Cancer, American Society for the Hard of Hearing, Conference of State and Provincial Health Authorities of North America, Maternity Center Association, National Committee of Health Council Executives, National Committee for Mental Hygiene, National Organization for Public Health Nursing, National Society for the Prevention of Blindness, and the National Tuberculosis Association.

Associate member agencies are: American Association of Medical Social Workers, American American Diabetes Association, American Nurses' Association, Foundation for Positive Health, Laymen's League Against Epilepsy, and the Planned Parenthood

Federation of America.

The U.S. Public Health Service and the U.S. Children's Bureau are advisory members.

### Department of Health Initiates Pioneer Campaign to Make Homes Safe

The first organized effort in a large American city to treat the chronic epidemic of home accidents as a public health problem demanding public education will start in New York City today under the collective auspices of the Department of Health, Greater New York Safety Council, and National Safety Council.

Public health officers, nurses, sanitary and food inspectors, and members of the staff of the Visiting Nurses Association, with others regularly contacting homes throughout the city, will attend the first of a series of ten teacher-training lectures on home safety to be given in twenty city health centers. The lectures will comprise an organized in-service training course continuing until June 9.

The first lectures were held at the Lower West Side Health Center, Manhattan, and in Jamaica Health Center, Queens. Initial lectures were given in eighteen other city health centers in March. The lectures were given weekly thereafter, with district health officers presiding at the meetings in their

The lectures, with visual demonstrations of home accident causes and methods of prevention, were developed and a teaching staff of about forty recruited, organized, and trained by the Greater New York Safety Council. The Council committee in charge is composed of W. Graham Cole, Chairman, Carroll E. Mealey, Dr. Herbert J. Stack, Roger Williams, Julien Harvey, Savel Zimand, and Paul F. Stricker.

Classroom and teaching facilities were provided by the Department of Health under the personal direction of the Commissioner of Health, Dr. Ernest L. Stebbins. Administration of the course is in charge of Mr. Cole, representing the Council, and Mr.

Zimand, of the Health Department.

The undertaking was financed by the National Safety Council in the expectation it will develop a pattern of effective home accident prevention methods which subsequently may be used throughout the United States.

Speakers in the course are representatives of

[Continued on page 1156]

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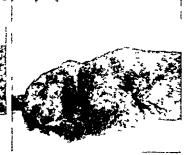
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[Continued from page 1154]

organizations such as American Red Cross, Good Housekeeping Institute, New York Fire Department, Center for Safety Education, National Conservation Bureau, and of public utility and insurance companies.

Explaining the difficulties encountered in combating home accidents, which are six times more numerous than industrial accidents. Dr. Stebbins "Education of the public appears to be as necessary in preventing home accidents as in preventing disease. Until now we have made constructive progress in preventing accidents in industrial plants, in construction work, and in traffic, but we have never been able to reach into the home, the most dangerous place of all. Since the Department of Health has many contacts with homes, and reaches many city families, we believe we can teach people to make their homes safe in the same way we are teaching them to make their homes healthful."

Preliminary 1943 reports of the Health Department of N.Y.C. show that of 3,732 New Yorkers who met accidental death, 1,847 were killed in their own homes. More than 1,100 died after falls, 321 after absorption of poisonous gases, and 205 from

burns and explosions.

### Health Workers Now Subject to W.M.C. **Employment Stabilization Program**

The War Manpower Commission, Washington, has announced that physicians, dentists, veteri-narians, sanitary engineers, and nurses who are salaried employees in essential or locally needed activities are hereafter subject to the same provisions of any employment stabilization program as applies to other workers in such activities. Such professional employees may not change their jobs without securing statements of availability from the U.S. Employment Service or being referred to new jobs by this Service. It is understood that the U.S.E.S. will make referrals of such employees only after consulting the state chairman of the Pro-curement and Assignment Service. The W.M.C. state directors may delegate the duty of referring such employees to new jobs to the state and local offices of the Procurement and Assignment Service if this delegation is approved by the regional W.M.C. director.

### Narcotic "Don'ts" for the Pharmacist

Don't leave prescription pads around. Caution the doctors you supply. Addicts want them for effecting narcotic forgeries.

Don't leave narcotics exposed near your wrapping counter. Drugs disappear this way. Check receipts

on your order forms.

Don't accept a narcotic prescription written in pencil. It is not a valid order even when written by

a physician.

Don't fail to scrutinize prescriptions when written thus: Morph. HT ½ ‡ X or Morph. HT ¼ ‡ 10. Several X's or zeros can be added to raise amounts.

Spelling or brackets obviate this possibility.

Don't carry a large-stock of narcotics. Only a three months' supply is good practice. Addicts are breaking into pharmacies and hospitals to get their

drug needs.

Don't leave the key inserted in the lock of your narcotic cabinet. Keep cabinet locked. Make it harder to effect robberies. Keep excess stock in a safe if possible.

Don't place your narcotic stock where it is accessible to others. Avoid storage near sink or toilet.

Customers may ask to use these.

Don't leave anyone alone in the back of your store if you can avoid it. Cabinets have been pilfered this way. Addicts pose as salesmen or ask to use your back room.

Don't become rattled by a rush request to fill a narcotic prescription. Claim for emergency use may be made to create confusion and pass a forgery.

Don't be taken in by a person wearing a white uniform presenting a narcotic prescription. Addicts have posed as nurses to mislead pharmacists and place them off guard.

Don't fill telephone orders for narcotics unless you are assured that prescription will be available upon delivery. Bogus doctor calls are made to effect delivery to addicts. Watch change racket along with this method.

Don't fill prescriptions for unusual quantities of narcotics unless checked with physician. Diversion to addicts is a profitable business, as much as \$1 for

1/4 grain MS

Don't refill narcotic prescriptions without getting new prescription. Fairly large shortages eventually occur through this practice.

Don't hesitate to call the physician about a narcotic prescription you may be questioning. The pharmacist is held responsible for filling forgeries. The doctor's cooperation should be sought.

Don't supply a doctor with his office narcotic needs on a prescription blank (except solutions on order forms). The law requires him to use an Official Order Form filled by a wholesaler.

Don't dispense any exempt narcotics without keeping a record. You must account for the distri-

bution of your purchases.

Don't break the law to accommodate others or for business expediency. Explain the regulations. The customer or physician will cooperate if he sees the point.

Don't hesitate to call this Bureau to get or give information. It will be held strictly confidential. New York State Narcotic Control Bureau: Albany Area—1500 State Office Bldg., Albany; New York City—546 State Office Bldg., N.Y.C.; Buffalo Area—403 State Office Bldg., Buffalo; Syracuse Area—411 Herald Building, Syracuse.

### New Locations of Department Offices Recently Moved

The offices of several units of the State Department of Health in Albany were moved recently and are now located in new quarters, noted below for the convenience of those who may have occasion to visit the staff members concerned.

The - Iministrative unit comprising the Office of Division of Malernity, and the Division of MedicaInfancy, Orthopedics is now housed in the Bond Building,

74-76 State Street, as follows:

Office of Medical Administration, eighth floor—Dr. Edward S. Rogers, assistant commissioner; Division of Maternity, Infancy and Child Hygiene, eighth floor—Dr. Elizabeth M. Gardiner, director; Bureau of Oral Hygiene, ninth floor—Dr. David B. Ast, assistant director; Emergency Maternity and Infant Care Bureau, ninth floor—Dr. Edward B. Bukowski acting director: Division of Orthogodies. Bukowski, acting director; Division of Orthopaedics, eighth floor—Dr. Eugene B. Wilson, assistant director.

[Continued on page 1158]

# OBJECTIVE

REDUCTION OF FEMALE ABSENTEEISM

Statistics show that women absent themselves from work much more often than men; indeed, such absenteeism is said to be 50 per cent<sup>1</sup> higher among women.

Though available data do not clearly assign the responsibility for this marked differential, obviously menstrual inconveniences account for a considerable proportion of the days lost.

On this point Pommerenke<sup>2</sup> recently made the following observation before the American Association of Industrial Physicians and Surgeons: "With a better understanding of the purpose and nature of menstruation, and its recognition as physiological rather than as a pathological process, many a woman may be re-educated and come to regard the so-called difficult days as days in which she need not seriously curtail her usual activities."

Many physicians have discovered the contribution which improved menstrual hygiene (as with the intravaginal tampon Tampax) affords this reeducation process—since it provides such a welcome sense of security, freedom and poise by relieving the physical distress and emotional uncertainty caused by vulval irritation from perineal pads, or from olfactory offense, or conspicuous bulging under slacks or coveralls.

Tampax can be used easily and safely—it will not irritate delicate tissues nor block the flow. And its three different absorbencies permit individual regulation depending upon daily needs. Compressed into a one-time-use applicator, it may be inserted and removed simply and daintily.

Your patients should be grateful to you for recommending Tampax—and (in many cases) it may enable them to stay "on the job" where they are so vitally needed.

(1) Mod. Med , 11 130, 1943, (2) Ind. Med., 12.512, 1943

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[Continued from page 1156]

The Division of Cancer Control, Dr. Louis C. Kress, director, and the Division of Public Health Education, Burt R. Rickards, director' have quarters in the New York State Teachers, Association Building, 152 Washington Avenue.

The Bureau of Narcotic Control, Ralph M. Wy-

man, acting supervisor, has been moved to the

fifteenth floor of the State Office Building.

The work of the Bureau of Pneumonia Control, formerly under the direction of the Assistant Commissioner for Medical Administration, has been reintegrated with that of the Division of Communicable Diseases and space allotted to its staff on the fifteenth floor of the State Office Building.

### STUDIES OF ALCOHOLISM IN NEW YORK COUNTIES

The Buffalo Council of Social Agencies has conducted a two-year study of chronic alcoholics in Eric County. The study was concerned with the nature, extent, and cost of alcoholism. Reports on the study included a summary of available treatment methods. The council's findings were distributed to the Board of Supervisors of the county and also to agency executives for use by staff members.

Mr. Elmer J. Tropman is acting executive secretary of the Buffalo Council of Social Agencies, 86 West Chippewa Street, Buffalo.

A Section on the Study of Alcoholism of the Rochester Council of Social Agencies plans an intensive survey of the entire problem in the city and Monroe County, and also hopes to make a hospital

The section is made up of social workers, psychiatrists, clergymen, public welfare officers, veteran rehabilitation workers, and a representative of

Alcoholics Anonymous. Dr. G. Kirby Collier, of Rochester, has been active in these developments.—Bulletin, Research Council on Problems of Alcohol, March, 1944

### TIME BETWEEN TUBERCULOSIS REPORTING AND DEATH

Health News reports that a recent study of tuberculosis case reporting in upstate New York disclosed that during the years 1940-1942 about 21 per cent of the fatalities from all forms of tuberculosis were not reported as cases before death. In addition, about 17 per cent of the total were reported within less than three months before death, and another 6 per cent within three to six months before death. In other words, it was pointed out, about 44 per cent of the deaths either were not re-ported at all during life or were reported a relatively short time before death. In explaining circum-

stances which extenuated this situation, Health News states that in certain instances, for example, tuberculosis, the diagnosis is based only on the necropsy.

In others the deaths are from nonpulmonary forms of the disease, in which there is ordinarily no exposure hazard. Some deaths occur in persons who establish residence in upstate New York a short time before death. Other similar factors may account for some of the late reporting, but they explain only a small proportion, it was stated.—J.A.M.A., March 25, 1944



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"PICKING YOUR PAPER"-If you just don't care, you might pick your business magazine because its paper makes the best airplanes. Or if you like games, you might eatch the right one with "Fish Pond." We'd bet you won't... Or, if you've got a leaning for it, pick the magazine with widest margins for doodling. . . But if you're serious about wanting the real leader, and no mistakes, then . . . etc., etc.-Nation's Business adv.

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В.	Oleic acid	7 parts
	Fine tripoli	35 ` "
C.	Ammonia (0.96)	5 parts
D.	Denatured alcohol	8 parts

Heat solution A and B. Saponify with C. Cool to 40-45° C., and add D. Impregnate suitable cloths at 40-45° C., permit to dry, and dust out gently before packing.

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#### **Books**

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

#### RECEIVED

Physical Foundations of Radiology. By Otto Glasser, Ph.D., Edith H. Quimby, Sc.D., Lauriston S. Taylor, Ph.D., and J. L. Weatherwax, M.A. Duodecimo of 426 pages, illustrated. New York, Paul B. Hoeber, Inc., 1944. Cloth, \$5.00.

Medical Care of the Discharged Hospital Patient. By Frode Jensen, M.D., H. G. Weiskotten, M.D., and Margaret A. Thomas. Octavo of 94 pages. New York, Commonwealth Fund, 1944. Cloth, \$1.00.

Know Your Hay Fever. By A. P. Sperling. With chapters on Clinical Applications by Arthur B. Berresford, M.D. Octavo of 241 pages, illustrated. New York, Frederick Fell, Inc., 1943. Cloth, \$2.00.

Civilization and Disease. By Henry E. Sigerist, M.D. Octavo of 255 pages, illustrated. 1thaca, N.Y., Cornell University Press, 1943. Cloth, \$3.75.

Medical Physics. By Otto Glasser, Ph.D., Editor-in-Chief, and others. Quarto of 1,744 pages, illustrated. Chicago, Year Book Publishers, Inc., 1944. Cloth, \$18.

Cosmetology in the Negro. A Guide to Its Problems. By Gerald A. Spencer, M.D. Duodecimo of 127 pages, illustrated. New York, Arlain Printing Co., 1944.

Manual of the Diseases of the Eye. By Charles H. May, M.D. Eighth edition. Duodecimo of 520 pages illustrated. Baltimore, Williams & Wilkins Co., 1943. Cloth, \$4.00.

Recent Advances in Medicine. Clinical Laboratory Therapeutic. By G. E. Beaumont, D.M., D.P.H., and E. C. Dodds, M.D. Eleventh edition. Octavo of 412 pages, illustrated. Philadelphia, Blakiston Co., 1943. Cloth, \$5.50.

Clinical Lectures on the Gallbladder and Bile Ducts. By Samuel Weiss, M.D. Octavo of 504 pages, illustrated. Chicago, Year Book Publishers, Inc., 1944. Cloth, \$5.50.

A Manual of Medical Parasitology. By Clay G. Huff. Octavo of 88 pages, illustrated. Chicago, University of Chicago Press, 1943. Cloth, \$1.50.

Medicine and the War. (Charles R. Walgreen Foundation Lectures.) Edited by William H.

Taliaferro. Octavo of 193 pages, illustrated. Chicago, University of Chicago Press, 1944. Cloth, \$2.00.

The Jews and Medicine—Essays. By Harry Friedenwald, M.D. (In two volumes.) Octavo of 817 pages, illustrated. Baltimore, Johns Hopkins Press, 1944. Cloth, \$3.75 per volume, \$7.50 per set.

Clinical Tropical Medicine. By twenty-seven authors. Edited by Z. Taylor Bercovitz, M.D. Quarto of 957 pages, illustrated. New York, Paul B. Hoeber, Inc., 1944. Cloth, \$14.

The Principles and Practice of Medicine. Originally Written by Sir William Osler, Bart., M.D., F.R.C.P., F.R.S., Designed for the Use of Practitioners and Students of Medicine. By Henry A. Christian, M.D. Fifteenth edition. Octavo of 1,498 pages. New York, Appleton-Century Co., Inc., 1944. Cloth, \$9.50.

Clinics. Vol. II. February, 1944. No. 5. Edited by George Morris Piersol, M.D. Octavo of 266 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1944. Published bi-monthly. Paper, \$12. By subscription, \$2.00 a single copy. Cloth, \$16 by subscription, \$3.00 a single copy.

Medical Parasitology and Zoology. By Lt. Col. and Flight Surgeon Ralph Welty Nauss, M.R.C., U.S.A. Octavo of 534 pages, illustrated. New York, Paul B. Hoeber, Inc., 1944. Cloth, \$6.00.

Vascular Responses in the Extremities of Man in Health and Disease. By David I. Abramson, M.D. Octavo of 412 pages, illustrated. Chicago, University of Chicago Press, 1944. Cloth, \$5.00.

The First Bound Supplement to the Pharma-copoeia of the United States of America. Twelfth Revision (First U.S.P. XII Bound Supplement—1943). By Authority of the United States Pharmacopoeial Convention. Prepared by the Committee of Revision and Published by the Board of Trustees. Octavo of 104 pages. Easton, Pa. Mack Printing Co., 1944. Paper.

Stop Worrying and Get Well. By Edward Podolsky, M.D. Octavo of 124 pages. New York, Bernard Ackerman, Inc., 1914. Cloth, \$2.00.

#### REVIEWED

Internal Medicine in General Practice. By Robert Pratt McCombs, Lt., MC, USNR. Octavo of 694 pages, illustrated. Philadelphia, W. B. Saunders Co., 1943. Cloth, \$7.00.

This volume contains 114 illustrations, numerous tables, and an excellent index. It is closely packed with information vital to the success of the medical student and the general practitioner. Its numerous pointers on symptoms and signs, differential diagnoses, and prognostic and therapeutic indications make it an outstanding book and one that the reviewer can heartily recommend to everyone interested in medicine.

M. A. Rabinowitz

Burma Surgeon. By Gordon S. Seagrave, I.t. Col. (MC), AUS. Octavo of 295 pages, illustrated. W. W. Norton & Co., 1943. Cloth, \$3.00.

This is not essentially a war book, but the delightfully told life of a medical missionary who successfully practiced his dual profession in Burma. He was caught in the advance of the Japanese into Burma and joined in the disastrous retreat under General Stilwell. Dr. Seagrave, a Hopkins man, a son and grandson of missionaries, elected to carry the light of medicine and faith into Burma. Taking his wife, "Tiny," and a basket of discarded instru-

[Continued on page 1163]

[Continued from page 1160]

ments, he practiced medicine and surgery, trained an unusually efficient corps of nurses, and made good, in the bargain, as a missionary. His charm of personality and his real medical ability are seen in the incident of the medical officer who battled against being sent to serve with Dr. Seagrave and then battled even harder when told later that he had to leave his assignment with Dr. Seagrave. The story of the loyalty and hardihood of the nurses and their affection for "daddy," as he was called, is interesting reading. Dr. Seagrave is a worthy disciple of Aesculapius, just as good a sky pilot, and he can tell a tale well.

Joseph Raphael

White Blood Cell Differential Tables. By Theodore R. Waugh, M.D. Duodecimo of 126 pages, illustrated. New York, Appleton-Century Co., 1943. Cloth, \$1.60.

The computation of the absolute numbers of the various types of cells encountered in the differential count is ordinarily carried out by multiplying the total number of leukocytes by the percentage of each type. This small volume of tables will be found useful for facilitating such computations. One fine feature of the volume is the discussion of probable error, a question to which too little attention is ordinarily paid.

A. S. WIENER

Proctology. By Sylvan D. Manheim, M.D. Octavo of 137 pages. New York, Oxford University Press, 1943. Cloth, \$2.00.

This outline on proctology probably has its greatest field of usefulness for students whose instructors follow this particular form. There are several points concerning which there is room for disagreement, such as the rotating of certain anoscopes during examination, the value of ether versus spinal anesthesia, the dosage of procaine hydrochloride for anorectal operations, and the treatment of pilonidal cysts.

Several typographical errors occur, which undoubtedly will be corrected in a subsequent edition. See "26-foot catheter" on page 93, and the misspelling of the word pruritus in the index on page 136.

A. W. MARTIN MARINO

Pathological Histology. By Robertson F. Ogilvie, M.D. Second edition. Octavo of 411 pages, illustrated with 235 photomicrographs in color. Baltimore, Williams and Wilkins Co., 1943. Cloth, \$9.00.

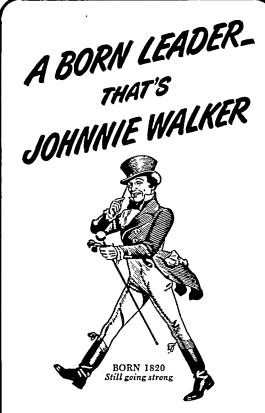
As a companion volume to a standard textbook of pathology the present volume by Ogilvie is excellent. The colored photomicrographs are well chosen and illustrative of the conditions discussed in the texts. The discussions are brief, as would be expected in a book on pathologic histology of only 400 pages. However, an attempt is made to cover in a general way the whole field of pathology. The introductory portions are particularly well illustrated and should be of value to students or to graduates wishing to refresh their knowledge of the subject.

DAVID M. GRAYZEL

Surgical Errors and Safeguards. By Max Thorek, M.D., LL.D. Fourth edition, revised. Quarto of 1,085 pages, illustrated. Philadelphia, J.B. Lippincott Company, 1943. Cloth, \$15.

This edition has been completely rewritten. It contains 1,085 pages with 794 illustrations, many colored. Special attention should be called to the

[Continued on page 1164]



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Care and Feeding of Children. By L. Emmett Holt, M.D. Sixteenth edition. Revised and enlarged by L. Emmett Holt, Jr., M.D. Duodecimo of 321 pages, illustrated. New York, Appleton-Century Co., 1943. Cloth, \$2.00.

A perfect gem of a little book for mothers, this new edition is well illustrated and much new mate-

rial has been added.

During the present crisis every moment of a doctor's time is invaluable. The young mother can resort to this book for help with many of her un-answered questions. The chapter on behavior problems and allergy are particularly helpful.

Inasmuch as so many women with young infants are traveling over the country following their lusbands to camp, this book can be especially recommended to them to aid them in solving their many problems.

THURMAN B. GIVAN

Oral Pathology. A Histological, Roentgenological, and Clinical Study of the Diseases of the Teeth, Jaws, and Mouth. By Kurt H. Thoma, DMD Second edition. Quarto of 1328 pages, illustrated St. Louis, C. V. Mosby Co., 1944. Cloth, \$15.

The second edition of this fine book was necessitated by the rapidity with which the dental profesion depleted the first edition.

In the preface of the second edition Dr. Thoma stes: "The text has been reviewed and additions made to include a few of the rarer diseases that were omitted from the first edition and to bring the book up to date. A number of new illustrations have been added and others have been replaced."

LAWRENCE J. DUNN

Are You Atlergic? By Jessamine Hilliard and Charles C. Coghian, M.D. Octavo of 248 pages New York, M. Barrows & Co., Inc., 1943. Cloth, \$2.50

This is another book on allergy written in an entertaining manner and intended primarily for the layman. The text, although free of heavy medical terminology, does include many old and recent experimental studies in the field of allergy. The chapters on controversial subjects, e.g., the allergic nature of stomach ulcers, acne, granulocytopenia, and seasickness could have been omitted from this book.

It can, however, be recommended as an addition to those available for the allergic patient.

MAX HARTEN

The Medical Clinics of North America. January, 1944. (Chicago Number.) Illustrated. Philadelphia, W. B. Saunders Company, 1944. Published bimonthly (six numbers a year). Cloth, \$15 net; Paper, \$12 net. 1944.

This volume of the Clinics is devoted chiefly to heart disease and disorders of the blood-forming organs. N. C. Gilbert has a useful summary of the treatment of coronary thrombosis. He speaks lavorably of the action of atropine in the early management of these cases. Maher has a good paper on hypertension and Sutton a brief résumé of mitral stenosis. Brief consideration is also given to aneurysm of the aorta (syphilitic and dissecting), heart block, and congenital lesions.

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[Continued from page 1163]

chapter on blood transfusions and to the new chapters on errors and safeguards in plastic operations, electrosurgical operations, and medical-legal aspects of surgical practice. This last addition by Dr. Hubert W. Smith of Harvard University may be read by all surgeons with great interest and profit. He has compressed much valuable information into a small space.

HENRY F. GRAHAM

The Dysenteric Disorders. The Diagnosis and Treatment of Dysentery, Sprue, Colitis, and Other Diarrheas in General Practice. By Sir Philip Manson-Bahr, M.D. Second edition. With an appendix by W. John Muggleton. Octavo of 629 pages, illustrated, including 9 color plates. Baltimore, Williams & Wilkins Co., 1943. Cloth, \$10.

An authority of thirty years' standing offers valuable information on dysentery in a form quickly available to those, both in the armed forces and in civilian practice, who will meet this condition more and more frequently as the present world conflict proceeds.

Differential diagnosis is emphasized: bacillary, protozoal, and helminthic types and treatments are categorically described and evaluated. Improvements in treatment are mentioned, especially the use of sulfaguanidine in bacillary dysentery, and the recent advance in the knowledge of the nutritional diarrheas provides very profitable discussion of the sprue syndrome.

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the dysenteries, first published in 1939.

HENRY F. KRAMER

Methods of Treatment. By Logan Clendening, M.D., and Edward H. Hashinger, M.D. Eighth edition. Octavo of 1,033 pages, illustrated. St. Louis, C. V. Mosby Co., 1943. Cloth, \$10.

The eighth edition of Dr. Clendening's book retains all of the good features and some of the defects of previous editions. The author's inimitable style is in evidence throughout, never showing to better advantage than in the little anecdote about Lady

Webster on page 149. The advice given is always sensible and practical but it is somewhat too comprehensive and uncriti-For example, silver nitrate is mentioned in the treatment of gastric ulcer and its dosage given without comment on its efficacy. Insufficient warning is given against the use of morphine in asthma. The discussion of psychoneuroses is insufficient and sketchy. The classification of nephritis is obsolete and the therapeutic suggestions limited.

The book therefore must be given qualified approval. Much of the material and most of the illustrations are excellent.

MILTON PLOTZ

The Modern Management of Colitis. By J. Arnold Bargen, M.D. Octavo of 322 pages, illustrated. Springfield, Ill., Charles C Thomas, 1943. Cloth, \$7.00.

From a vast experience of study and research done with great detail and care, Dr. Bargen has written a book which is invaluable to anyone interested in the subject of colitis. In clear style, with thoroughness, he has covered the clinical and pathologic phases of this difficult and complex subject in fine style. ject in fine style.

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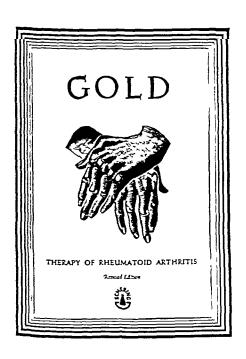
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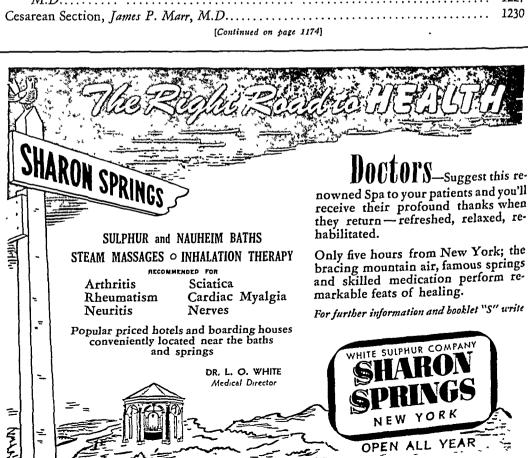
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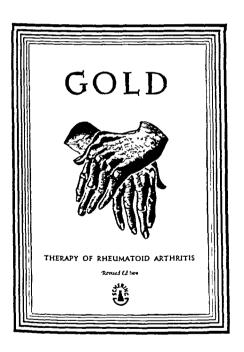
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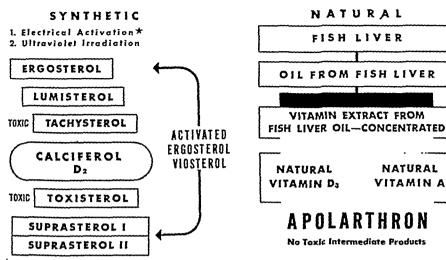
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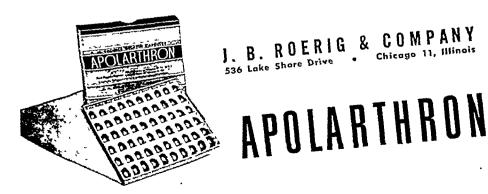
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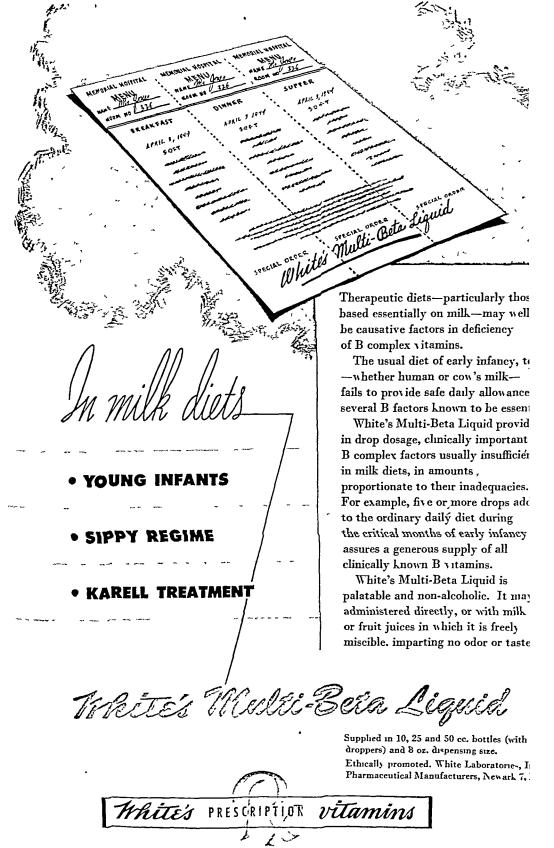


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Lessened food availability, rationing, and increased carbohydrate consumption, in many instances have taken the dietary far from what might be called optimum. Not only to assure better utilization of the present-day dietary, but also to prevent or correct nu-

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Thiamine hydrochloride	1.0 mg.
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Pyridoxine hydrochloride .	
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plus all other factors naturall	yoccurring
in yeast concentrate. Novig	olex is sup-
plied in bottles of 100 and 50	00 capsules.

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THE effectiveness of Mercurochrome has been demonstrated by more than twenty years of extensive clinical use. For professional convenience Mercurochrome is supplied in four forms—Aqueous Solution in Applicator Bottles for the treatment of minor wounds, Surgical Solution for preoperative skin disinfection, Tablets and Powder from which solutions of any desired concentration may readily be prepared.

## Mercurochrome

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Mercurochrome is antiseptic and relatively non-irritating and non-toxic in wounds.

Complete literature will be furnished on request.



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## PENICILIN MERCK

#### A RECORD OF PERFORMANCE

Thoroughgoing experience and established leadership in organic research, development, and production have been the determining factors in the rapid achievement of large-scale Penicillin production by Merck & Co., Inc.

Intensive research on Penicillin, begun in the autumn of 1940, established a sound basis for the successful development of mass production. By applying chemical engineering principles to the manufacture of this intrinsically unstable and difficultly produced substance, Merck & Co., Inc. succeeded in devising and perfecting a practical method of production, based on the mass-fermentation principle.

The following chronologic review tabulates the more important advances leading to the present volume of Penicillin production, including some of the contributions that we have been privileged to make:

1929-Penicillin discovered by Fleming in England.

1932-First report by British investigators confirming original work on Penicillin.

1940—First isolation of solid Penicillin by Oxford investigators.

1940—Merck research on antibiotics concentrated on Penicillin.

1941-First report of Penicillin's clinical value.

1941—Prof. H. W. Florey and Dr. N. G. Heatley, of the Oxford group, visited the United States to confer with interested Government officials and manufacturers, with the objective of establishing Penicillin production in America.

1941—Dr. Heatley, who participated in the first production work in England, remained at the Merck Research Laboratories to collaborate with Merck chemists in developing test and production procedures.

1941—Merck brought about a reciprocal arrangement between British and American investigators to spur production in cooperation with the United States and British governments.

1942—Merck supplied Penicillin for first case of bacteriemia successfully treated with Penicillin in America.

1942—Merck Penicillin was rushed under police escort to Boston for treatment of the Cocoanut Grove fire casualties.

1943—Merck sent supplies of Penicillin to England by air transport for urgent therapeutic use by the United States Army Medical Corps.

1943—Large-scale production of Penicillin was established by Merck to meet Government requirements.

1944—Merck sends ever-increasing supplies of Penicillin to our Armed Forces.

Merck & Co., Inc. will continue to surpass present production records, with the urgent objective of supplying adequate quantities of Penicillin for civilian use, as soon as the essential requirements of our Armed Forces have been fulfilled.

MERCK & CO., Inc. Manufacturing Chemists RAHWAY, N. J.

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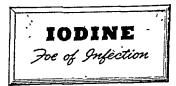
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THE prompt restoration of health in individuals suffering from deficiency of the water-soluble vitamins is facilitated by the following measures:

- 1. Early and accurate diagnosis.
- 2. A nutritionally rich diet.
- 3. Supplementation of the diet with BASIC FORMULA VITAMIN TABLETS SQUIBB
- 4. Augmentation of the intake of B-Complex factors with dried brewer's yeast, yeast concentrate or oral liver extract.





The composition of Basic Formula Vitamin Tablets Squibb is as follows:

10 mg. Thiamine Hydrochloride

5 mg. Riboflavîn

50 mg. Niacinamide

75 mg. Ascorbic Acid

BASIC FORMULA has a background of proved clinical value—in Birmingham, Alabama, and in New York City. This is the "basic formula" used by Dr. Norman Jolliffe and Dr. Tom D. Spies, and described by the latter in his study on the nutritional rehabilitation of 100 American workers for industry.

Do as many nutrition experts do — use Basic Formula in treating deficiencies of

water-soluble vitamins. Ample supplies are now available. A recent reduction in price has lowered the cost more than one-third. Remember, Basic Formula Vitamin Tablets Squibb represent the exact composition of the "basic formula" many experts have used and recommended. It is best, however, to specify "SQUIBB" in ordering to be sure your patient receives the original effective formula.

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## Basic Formula Vitamin Tablets SQUIBB

# A Comprehensive Course o

The treatment of arthritis as a systemic disease requires comprehensive and collaborated therapeutic endeavors.

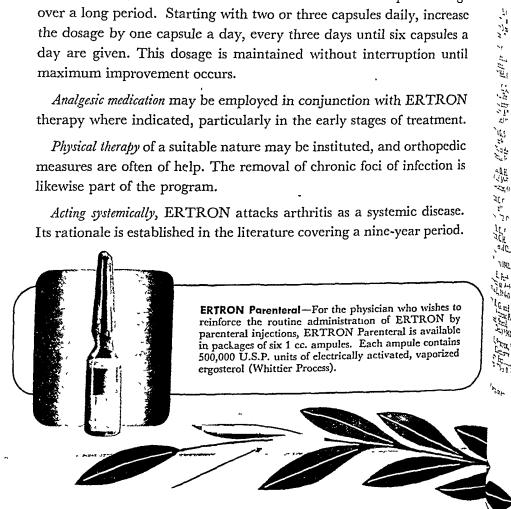
With ERTRON therapy, intensive dosage-Ertronization-is recommended in order to derive optimum benefit.

To Entronize, ERTRON must be administered in adequate dosage over a long period. Starting with two or three capsules daily, increase the dosage by one capsule a day, every three days until six capsules a day are given. This dosage is maintained without interruption until maximum improvement occurs.

Analgesic medication may be employed in conjunction with ERTRON therapy where indicated, particularly in the early stages of treatment.

Physical therapy of a suitable nature may be instituted, and orthopedic measures are often of help. The removal of chronic foci of infection is likewise part of the program.

Acting systemically, ERTRON attacks arthritis as a systemic disease. Its rationale is established in the literature covering a nine-year period.



CHICAGO RESEARCH LABORATORIES NUTRITION

## Treatment for the Arthritic

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A complete bibliography available on request

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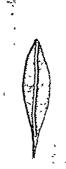
## **ERTRON**

ERTRON alone—and no other product—contains electrically activated, vaporized ergosterol (Whittier Process).

Supplied in bottles of 500, 100 and 50 capsules.

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# A Comprehensive Course of

The treatment of arthritis as a systemic disease requires comprehensive and collaborated therapeutic endeavors.

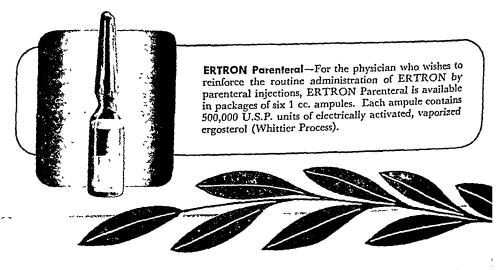
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"But periodic starvation has no place in the care and conditioning of the old and is one of many useless middle age fads."\*



Toencourage proper alimentation of the elderly patient with minimum strain on digestive capacity, why not encourage the frequent use of

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\*Tuohy, E D. Feeding the Aged, Handbook of Nutrition, Pub by Am. Med Assoc, 1943, pp 366-384

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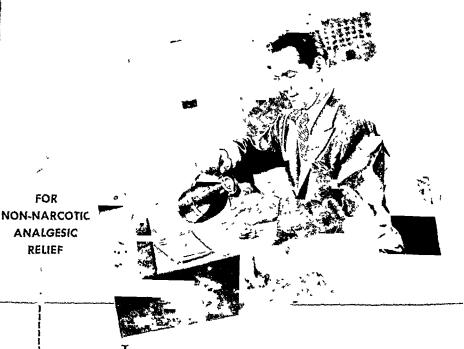
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\*Tuohy, E. D.: Feeding the Aged, Handbook of Nutrition, Pub by Am. Med Assoc, 1943, pp 366 384

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# RESPITE FROM PAIN IN ARTHRITIS



 ${f I}$ n "Modern Therapy in General Practice" the author stresses the judicious use of simple analyssics in arthritis so that the sufferer can gain some respite from pain. "For long continued use, acetylsalicylic acid is the safest drug . . . "\*



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Each effervescent tablet dissolved in water provides sodium salt of aspirin 8.5 grs., sodium citrate 27 grs.

The buffer alkalı mechanism, together with the CO2 factor of the effervescent base, combine to

\*Barr, D P · Modern Medical Therapy in General Practice Pub by The Wil liams & Wilkins Co 1940. Vol 3, pp. 3326 3327.

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RELIEF

Speed stomach emptying time Encourage rapid absorption Protect the analgesic-sodium acetyl-salicylate-from breakdown in stomach Reduce tendency to gastric upset

Ethically promoted—available through your prescription pharmacy in bottles of 25 tablets. Write for literature and professional sample. Dept. N.Y.-6

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The soft, demulcent mass produced by Metamucil promotes intestinal motility by the normal response to increased bulk.

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Metamucil is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

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a highly purified, non-irritating extract of the seed of the psyllium, Plantago ovata (50%), combined with anhydrous dextrose (50%), mixes readily with water, milk or fruit juices, and is pleasant to take.

Supplied in 1 lb., 8 oz. and 4 oz. containers.

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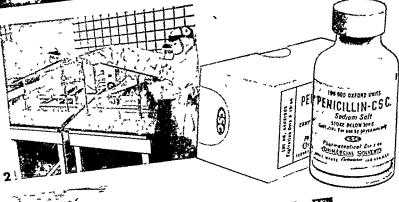
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SEARLE

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1—Instead of the two-liter flasks in which penicillin ordinarily is made by "surface culture," Penicillin-C.S.C. is made in a battery of giant tanks, each of 12,000 gallon capacity, by "submerged culture," an operation of vastly increased sensitivity, calling for the utmost in care and control. 2—Vial-filling; note the safeguards against contamination. 3—Cold room, where Penicillin-C.S.C. is frozen prior to vacuum-drying.







4—The "last word" in controlled vacuum-drying equipment. The number of these evaporators indicates the magnitude of Penicillin-C.S.C. production. 5—Vial-sealing and capping.

Walls of highly polished opal glass and translucent glass brick, and rounded wall, floor and ceiling abutments, permitting of maximum cleanliness—

air-conditioning that controls temperature, humidity,

and particle content-

sterilizing lamps that destroy air-borne microorganisms—

sterilizing-lamp-controlled "locks" that prevent undue airflow from room to room-

sterile clothing (masks, gowns, shoes, gloves) worn by all technicians—

facial shields which carry the technician's breath away from the work area-

these are but a partial list of the safeguards employed in the "sterile area" of the Penicillin-C.S.C. plant.

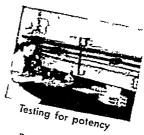
Out of its quarter-century of research and experience in microbiotic production, Commercial Solvents Corporation has developed not only these safeguards, but also the "submerged culture" method which produces Penicillin-C.S.C. in giant three-story tanks.

This combination of mass production methods, skilled personnel, the utmost in safeguards, and unremitting laboratory control spells two assurances—

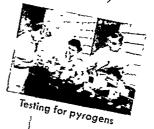
Penicillin-C.S.C. will always be of dependable potency,

sterility, and pyrogen-freedom-

Penicillin-C.S.C., though now allocated as the armed forces direct, will be available in adequate distribution throughout the United States as soon as released.

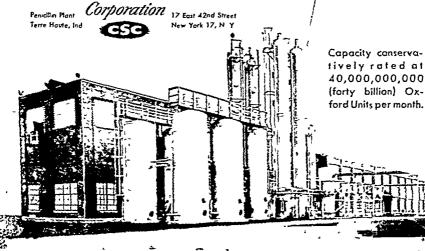






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Crystals often possess great beauty, but in delicate renal tubules they can be as damaging as powdered glass, as obstructive as hydrargyrism.

During sulfonamide therapy the dangers of crystalluria may be effectively diminished by administration of 'Alka-Zane'\* Alkaline Effervescent Compound which raises urinary pH and thereby helps bring sulfonamides safely through the kidney, in solution. Sulfonamides may be ten times more soluble in alkaline urine than in acid urine.

'Alka-Zane' Alkaline Effervescent Compound makes a refreshing, effervescent drink, increases sulfonamide solubility and fluid intake, and provides calcium glycerophosphate, magnesium phosphate, calcium phosphate, potassium bicarbonate, sodium bicarbonate and sodium citrate.... William R. Warner & Co., Inc., 113 West 18th Street, New York 11, N. Y.





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One of these is rapid in action and transient in effect—the other, slowly absorbed and prolonged in effect. Because of this blended anesthetic action, Diothoid Suppositories relieve pain quickly and keep the patient comfortable over a long period of time.

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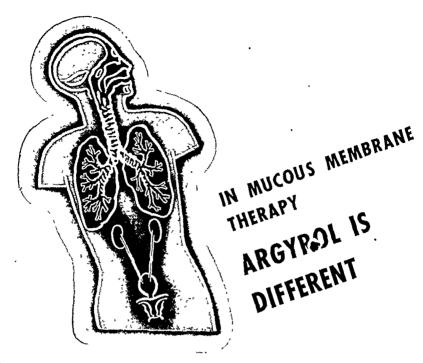
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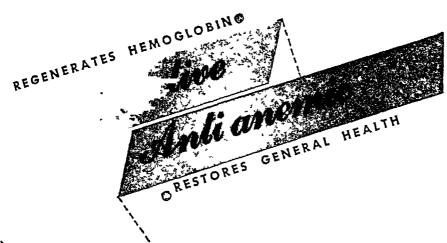
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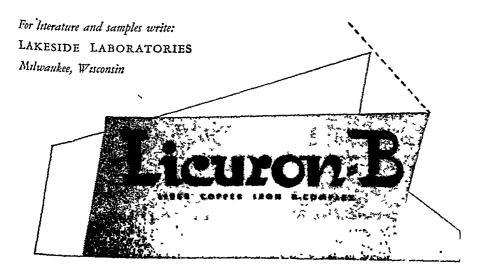
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. Licuron-B contains the most effective therapeutic ratio of copper-iron, circumventing the use of large constipating doses of iron. The content of liver in Licuron-B serves as a rich source of all the known B vitamins, augmented by the crystalline vitamins, thiamine, riboflavin, and niacinamide in rational proportion.





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\*WOLDMAN, E. E., and POLAN, C. C. The Value of Colloidal Aluminum Hydroxide in the Treatment of Peptic Ulcer; A Review of 407 Consecutive Cases, Am. J. M. Sc. 198 155-164 (Aug.) 1939.





ALUMINA GEL

# NEW YORK STATE JOURNAL OF MEDICINE

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**VOLUME 44** 

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NUMBER 11

### Editorial

#### Nurses for the Armed Forces

Nursing care for the men in the armed forces must be plentiful and of the highest quality obtainable. No compromise with these demands is even thinkable. They must and will be fulfilled.

Since December 24, 1943, the Procureinent and Assignment program for nurses has been in operation in this State. No nurse is now accepted by the Army or Navy without a 1-A clearance from the State Committee.

The sixty-one local Procurement and Assignment Committees, composed of representatives from medical, hospital administrative, and lay groups, review each case after studying the circumstances existing at the agency employing the nurse. Not only does the agency itself submit a report of its nurse personnel, but the advice of the employer or his agent also is sought by the local committee before classifications are made.

The State Procurement and Assignment Committee, with similar representation, reviews the classifications recommended by local committees and makes the final classification. Applications for military service are forwarded by the American Red Cross. All groups or individuals affected by the nurse procurement program in this State are afforded ample opportunity to be heard before final classification is made.

To May 1, 1944, 14,020 nurses had been classified by the State Committee, a truly noteworthy accomplishment. These 14,020 nurses include 4,504 nurses classified 1-A

(under 45 years of age and unmarried) and 702 classified 1-B-1 (under 45 years of age, married, but not maintaining a home with husband; no children). There are, therefore, about 5,206 nurses in the "available" group.

In 1943, 2,638 nurses were assigned to the Army and Navy, 44 per cent of the State's quota of 5,971.

In 1943, 3,000 student nurses graduated. New York State's quota of nurses for the armed forces, for the first half of 1944, is 1,957 nurses. To May 1, 629 had been assigned, leaving a balance of 1,328 still to be recruited by June 30, 1944. But the fact that only one nurse out of ten classified as 1-A is now entering military service is a cause of some concern. Nursing care for the armed forces must not fail.

The State's reserve of 5,206 "available" nurses should be ample to provide the 1,328 necessary to complete the quota for the first half year without unduly depleting nursing service for the civilian hospitals.

Apparently every consideration possible has been given by the State Procurement and Assignment Committee to the reasonable needs of hospitals and other agencies requiring nursing service. Possibly 500 to 700 nurses in the "available" group who have appealed their classifications or whose employers have done so for them will eventually be reclassified. We are informed that "Almost every single hospital in the State reports it has a varying number of formerly inactive nurses back on its staff.

It has volunteer help in almost undreamedof proportions. The entire problem is, of course, complicated by the shortage of all kinds of help and the fact that in almost all hospitals the patient census is higher."

No such vast program of procurement could possibly be conducted as was the case in the procurement of physicians, without in some instances creating a temporary imbalance in a few localities. In the case of the nurses in 1944, as in that of the physicians in 1942 and 1943, such imbalances are being somewhat slowly corrected by replacements from nurses in retirement, and those in the private-duty field. It has been recommended that "married nurses who have been classified as available for military service be reviewed and wherever these nurses are filling essential positions, . . . they be reclassified as essential even though potentially eligible for military service." This will assist in correcting some few instances where it appears too many nurses had been classified as available by local committees.

It has been recommended by the Medical Society of the State of New York that "the component county medical societies give every possible aid to the Procurement and Assignment Committee of the New York State Nursing Council for War Service in working out legally the double task of the State Procurement and Assignment Committee for Nurses in securing nurses for the armed services and in maintaining essential local nurse civilian situations.... To that end the Council urges that the county medical societies encourage visits of representatives of the Nurse Procurement and Assignment Committee as well as conferences with the War Participation Committees of the county societies."

Individual physicians can assist in this vital program of nurse procurement by urging all nurses in the "available" group to respond, and by releasing wherever possible office nurses who can be replaced by secretarial help. We bespeak the assistance of our membership in assuring the success of this program, and in giving the widest possible publicity to the needs of the armed forces for 1-A nurses.

The State of New York has always met and usually has more than met its quotas in every other category—physicians, finance, selective service, volunteer help on the home front, blood banks. Its 1-A nurses will not fail their brothers, husbands, kith and kin, as vast attack, relentless invasion, and wide spread naval operations make more imperative than ever the need for their services.

#### Opportunity for Service

The New York State Guard is seriously in need of medical officers as well as enlisted personnel, medical as well as line. was brought to the attention of the members of the Medical Society of the State of New York at the meeting of its House of Delegates, where it was the subject of a resolution urging every physically qualified physician not over 55 years of age "to apply immediately to his nearest unit of the New York State Guard to ascertain whether or not his services are needed; and....to contact every individual in his territory between the ages of 17 and 55 with the view of urging them to enlist immediately in the Guard for either medical or line-troop duty."

The existence of the New York State Guard is required by the Constitution of the State, and is the first line of defense in any internal disturbance, be it from fifth-column activities or the disasters of nature. The removal of more and more Federal troops from the area of the continental United States increases the importance of the State Guards as a guarantee of the tranquillity of all states, renders their recruitment of all personnel to full strength of first importance, and the maintenance of their health and medical care a responsibility of the physicians of the Empire State.

Medical officers and medical corpsmen of the Guard have this responsibility; they must be well trained and numerically sufficient to discharge their obligations well. Especially is this so during the period of field training and in the period immediately preceding field training when inoculations and vaccinations of Guard personnel must be done. Here is an opportunity for service which should be seized by all physically qualified physicians who can do so. Report to your nearest unit of the New York State Guard now to ascertain whether or not your services are needed.

1203

#### Aerobiology

The decline of air-borne infection has been well documented in a recent monograph. This decline is a merited reward of the heightened insight into the importance of improving hygienic conditions, but by no means connotes the ultimate extinction of air-borne infections. Colds, influenza, and other virus infections carried by the atmosphere are still too much with us. Nor does there seem imminent a sharp decrease in such air-borne diseases as measles, chicken pox, and mumps, which continue to recur in endemic or epidemic form. Such persistent prevalence indicates that many features of this type of infection still await solution. An ingenious study along the lines of aerobiology has recently been reported by one of the pioneers in this field.2 The gist of their thesis is as follows.

Epidemics may be explained by the law of mass action. The parasitic communication between host and victim may be likened to the contact between reacting molecules. Contact is an elemental concept in chemical reactions but in the spread of contagion the behavior of the parasite and the resistance of the host are variable factors. In addition, there may be an intermediate environmental factor, the air. further complicate matters, the existence of an infection may not be clinically apparent, a fact which necessarily impedes the study of epidemic contagion. Nevertheless, it is possible to study the dynamics of contagion experimentally by choosing simple problems.3

Measles, which produces a fairly characteristic picture, is a good subject for such studies. Recovery from the disease produces lasting immunity, with few exceptions, while susceptibility

1 O'Hara, D.: Air-Borne Infection, New York, The Commonwealth Fund, 1943.

2 Wells, W. F., and Wells, W. W. Am. J M. Sc. 206: in the nonimmune is great. Hence, many of the latter group can confidently be expected to contract the disease under conditions of proper exposure.

Susceptible students can be ascertained by the study of carefully kept school records. In classroom investigations, approximately similar numbers were exposed for equal periods. Under favorable circumstances, statistical expression can be given to probability of contact in such air-borne infections. The rate at which the air becomes infected depends upon the rate at which susceptible individuals become infected. rate of removal of infected material in the air depends upon ventilation. Increasing ventilation and decreasing the number of susceptible individuals are the major factors which diminish air-infection. Irradiation of the atmosphere was found to be equivalent to increasing ventilation. Similarly, in a study of mumps at Swarthmore College, change from epidemic to endemic spread of the disease was achieved by decreasing the atmospheric density of susceptibles.

Such mathematical studies offer a technic for evaluating the efficacy of therapeutic measures. From the above it is safe to conclude that airborne infections depend in the main upon a deficiency of air supply per susceptible person. This obviously calls for greater ventilation of crowded rooms and halls, combined with periodic emptying of these rooms, particularly of individuals who are harboring an air-borne microorganism.

Another interesting revelation was that a tenfold increase of winter ventilation may be equivalent to ultraviolet irradiation in controlling the epidemic spread of air-borne contagions. Appreciation of the importance of ventilation combined with the removal of individuals who literally infect the air bids fair to be the foundation of a new branch of medicine-aerobiology.

#### A.M.A. Will Meet in Chicago June 12-16

The ninety-fourth annual session of the American Medical Association will be held in Chicago, June 12-16, 1944.

The House of Delegates will convene at 10:00 A.M. on Monday, June 12. The delegates from New York will be Drs. James R. Reuling, Jr.,

Bayside; Edward R. Cunniffe, New York; William D. Johnson, Batavia; Thomas M. Brennan, Brooklyn; Clarence G. Bandler, New York; Floyd S. Winslow, Rochester; Walter P. Anderton, New York; Oliver W. H. Mitchell, Syracuse; Emily Dunning Barringer, New York:

<sup>11 (</sup>July) 1943.

Smith, T.: Parasitism and Disease, Princeton, Princeton University Press, 1943.

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[N. Y. State J. M.

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BARNETT A. GREENE, CAPT., (MC), AUS

THE purpose of this paper is to emphasize: (1) the applicability of intravenous pentothal sodium as the primary agent for anesthesia of one hour or more, and (2) its value in military surgery.

Too little emphasis has been placed on its utility in long operations. Almost universally, and even as recently as Beecher's article in the Journal of the American Medical Association, we have been cautioned to use intravenous anesthetics only in short cases, and warned that its use in longer cases is undesirable. It is our belief, however, that the recent gains in knowledge and experience in anesthesiology and the rapidly expanding body of skillful anesthetists make this an opportune and necessary time in our present crisis to reduce the resistance of surgeons and anesthetists to the use of intravenous anesthesia for long cases, especially in military surgery.

We consider intravenous anesthesia to be safely applicable to long surgical procedures, whether they are major or minor, only if relaxation and depth need not be profound. It has been reported as successful for surgery requiring great depth of anesthesia and marked relaxation,2 but we do not consider it as safe as other methods available for such operations, especially in vigorous patients. For prolonged cases requiring little or moderate relaxation, intravenous anesthesia can be as safe as and more practicable than any other method, e.g., surgery of extremities, head, chest wall. From the point of view of the degree of relaxation which can be safely maintained indefinitely with intravenous anesthesia, it should occupy a place between ethylene and cyclopropane. In short, we do not advocate a change in the type of case suitable for intravenous anesthesia, but we do wish to remove the time limit that has been imposed on intravenous anesthesia. Any procedure which, if brief, can best be done under intravenous anesthesia, should and can be given the same type of anesthesia, even though the operation lasts one or eight hours.

#### Review of Literature

Cailleret\* (1931) produced intravenous evipal anesthesia for 200 cases, in some of which the duration was one and a half hours and the maximum dose 1.8 Gm.

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 4, 1943.

Ragotzky<sup>4</sup> (1933) reported 120 cases of evipal anesthesia chiefly for major operations. The maximum dose was 2 Gm.

Von Sailer<sup>5</sup> (1934) described 120 major operations with evipal anesthesia for one and a half hours, using 3 Gm. at the most.

Decker<sup>6</sup> (1934) gave evipal for 112 cases, chiefly laparotomies, in which the maximum dose was 2 Gm. and the maximum duration was eighty-three minutes.

Jentzen' (1934) described 1,500 cases of evipal anesthesia in which were included major operations over two hours long requiring 4.8 Gm. of evipal.

Lundy<sup>8</sup> (1935) administered pentothal without ill effect, in a brain tumor operation which lasted three and one-half hours.

Maloney<sup>9</sup> (1936) reported 18 cases of intravenous evipal anesthesia of one hour or more; three of these lasted 125, 125, and 133 minutes, respectively. He, however, took the precaution of injecting 2 cc. of a 0.3 per cent picrotoxin solution intramuscularly just before the start of the anesthesia. We do not find this necessary unless the patient arrives in the operating room too depressed by premedication. noted an occasional episode of postoperative restlessness or excitement during recovery, which was easily controlled by morphine sulphate. We, too, have had this type of postoperative experience with pentothal, but these instances have been as uncommon as they are with similar cases of prolonged anesthesia with ether or cyclopropane, and they are just as readily quieted by morphine.

McNelis<sup>10</sup> (1936) reported the use of 4 Gm. of evipal given to a robust patient for an hourlong reduction and application of a spice east for a fractured femur.

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Laquière<sup>13</sup> (1939) presented the result of 2,879 cases of evipal anesthesia, of which more than two-thirds were of moderate or long duration, up to three and one-half hours, using up to 4.6 Gm. evipal.

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were due to (1) failure to respect a contraindication to intravenous anesthesia, or (2) too rapid injection of a relative overdosage, or (3) lack of complete facilities for the treatment of respiratory obstruction or depression.

There is no evidence in the literature which contraindicates the application of intravenous pentothal sodium anesthesia as a primary agent for long cases, under proper safeguards and for suitable operations.

There are many conditions which are only relative contraindications to the use of intravenous anesthesia for short cases—e.g., moderate hepatic damage, shock, lack of all safeguards. These may be overlooked in many short cases without encountering disaster. But for prolonged surgery these and many other conditions must be corrected, compensated for, or treated before or while subjecting the patient to the anesthesia.

There are several abnormalities of physiology,26 such as slight anoxemia, retention of carbon dioxide, mild respiratory obstruction, which may appear during brief intravenous anesthesia without causing complications. They are tolerable only because the brevity of the procedure allows for spontaneous recovery. But in the safe conduct of anesthesia for prolonged operations, there must be more accurate maintenance of normal respiratory and circulatory conditions. Respiration must not be hampered by the slightest degree of obstruction. The respiratory center, to be judged accurately for its true level of depression by the anesthetic, must be kept free from any abnormal stimulating influence such as anoxemia and retained carbon dioxide.26 Allowance must be made for the action on respiration by unavoidable stimuli-e.g., cutaneous reflexes and analeptic drugs required prior to or during anesthesia. In prolonged intravenous anesthesia if anoxemia or hypercapnia is not prevented or cut short, the patient is in danger of sudden severe depression of respiration and circulation by the anoxemia and hypercapnia as they accumulate beyond the level of stimulation and become depressant. Furthermore, the patient will receive an unnecessarily larger dose of pentothal, because the deep respirations will indicate a seemingly lighter plane of anesthesia than is really present. For the same reason we do not advise the use of a respiratory stimulant just before induction, as used by Maloney,9 or during anesthesia, as was once recommended by Lundy. Preanesthetic stimulation is indicated only when the patient is too depressed by premedication. Stimulation during anesthesia is needed only for the treatment of respiratory depression by an overdose of the anesthetic agent. >

The postoperative temperatures in our cases

have not been higher than expected from any prolonged anesthetic and surgical procedures, contrary to the observation of Davison and Rudder. In 9 cases of fenestration for otosclerosis, in which we recorded the maximum postoperative rectal temperatures, there were the following peaks of temperature, which returned to normal in eight to twelve hours: 99.8, 100, 100.2, 100.2, 100.6, 100.6, 101, 101.8, 102.4 F.

We have observed no unusual tendency toward bleeding in operative areas, as might have been expected from the known vasodilator quality of pentothal. This favorable experience might have been due to the presence of large doses of atropine in our cases, so decreasing the parasympathetic action of pentothal.

Prolonged postoperative sleep is frequently noted after prolonged intravenous anesthesia. As with all methods of general anesthesia, the duration of this sleep is proportional to the duration of anesthesia. But true postoperative depression of respiration, circulation, and protective reflexes, sufficient to cause concern or require active therapy, has been as rare as with ether anesthesia. It has occurred only when we have carried the patient too deeply for too long or the surgical trauma was severe. Postoperative sleep for periods up to eight hours and drowsiness for the next twenty-four hours is more often encountered with the use of prolonged intravenous anesthesia. Such sleep or drowsiness is usually desirable and decreases the need for morphine postoperatively. It is a shallow narcosis which may be interrupted by loud commands and does not prevent the patient's cooperation in taking medication or fluids. It may decrease his attention to the need for urination and therefore require increased effort to prevent bladder overdistention. Sleep or depression following prolonged barbiturate anesthesia may be easily combated with repeated doses of coramine, metrazol or picrotoxin. When it is vital that the cough reflex and respiration be active immediately after operation, we have avoided the use of intravenous anesthesia for even short cases, unless an endotracheal airway is to remain until the patient is fully awake, and the patient is repeatedly roused by regular doses of an analeptic, frequent change of position, and verbal encouragement of deep respiration and cough.

The conditions which insure the clinical safety of intravenous pentothal sodium for long anesthesias are: (1) the supervision of the patient by a competent anesthetist; (2) the immediate accessibility and application of equipment for the administration of oxygen under pressure, establishing the patency of the entire

Palmer<sup>14</sup> (1939) stated that pentothal anesthesia can be maintained with comparative safety in trained hands for major surgery over long periods without any apparent deleterious effects. The longest case in his large group, most of which were major procedures, was three hours and twenty-five minutes, using 2.75 Gm. of pentothal.

Davison and Rudder<sup>15</sup> (1940) reported 1,524 consecutive major operations in which the only anesthetic was pentothal sodium; very many of the cases lasted one hour or more, and many patients received 2, 3, and 4 Gm. doses. All patients received careful observation and continuous inhalation of 100 per cent oxygen.

Moore<sup>16</sup> (1940), who considers the pentothal the agent of choice in casualty clearing stations, reported 200 operations, of which the longest was two hours, requiring 2.25 Gm. pentothal.

Joers<sup>17</sup> (1942) used pentothal in more than 100 major cases. In some cases, such as brain tumor operations, gastric resections, or bone surgery, the drug was administered for three or four hours without complications.

Ruth et al. 18 have used as much as 3.15 Gm. of pentothal during an anesthesia of five and one-quarter hours for a neurosurgical procedure.

Hand and Edwards<sup>19</sup> (1942) stated that "at the Lahey Clinic pentothal as the primary agent is still limited to minor procedures in which relaxation is not a prime factor. When used in long procedures as a supplementary or complementary agent, oxygen or a nitrous oxide-oxygen mixture with 30-50 per cent oxygen, is routinely added."

Adams and Gray<sup>20</sup> have reported the excellent value of pentothal sodium for repair of a gunshot laceration of diaphragm, lung, abdominal and chest walls, and spleen in a shocked 26-year-old woman who was successfully repaired during 105 minutes of anesthesia with 16 cc. of a 2.5 per cent solution. Of course this patient simultaneously received the benefit of shock therapy, intratracheal airway administration of 50 per nitrous oxide, oxygen-50 per cent tracheobronchial suction, and-most important of all-very gradual intermittent additions of 1 cc. units under the care of a highly expert anesthetist.

Randolph and Kober<sup>21</sup> (1943), in their use of pentothal for 123 thoracoplasties, ran an unstated number of their operations for one hour or more, the longest being 115 minutes. They also used more than 1 Gm. in most cases, the largest amount being 2.5 Gm. Half of their cases received oxygen by nasal catheter; an occasional case required oxygen by anesthetic apparatus, but seldom was a respiratory stimulant required.

Searles<sup>22</sup> (1942) has reported his large experi-

ence with over 2,000 personally administered intravenous anesthetics without a death. In many of his cases the period of anesthesia was up to four and five hours. But he rarely used more than 1 Gm. of pentothal, because he relegated it to the position of a supplementary or complementary agent to other drugs or regional blocks.

Davison<sup>23</sup> employed pentothal-sodium-oxygen anesthesia in 7,620 consecutive cases, regardless of the time required. One 12-year-old boy received 1.2 Gm. pentothal for a craniotomy and then, two weeks later, 1.5 Gm. for an eight-hour removal of a pineal tumor.

Wagner has employed pentothal sodium for some of his cases as long as two and one-half and three hours, using a maximal dose of 2.67 Gm. with favorable results.

Coryllos and Bass<sup>24</sup> have employed evipal in 605 thoracic procedures without an anesthetic death, although 11 patients required resuscitation for apnea. A large unstated number of the 605 operations probably lasted one hour or more.

This cursory review of the literature has impressed us with the growing tendency, also noted by Long and Ochsner,25 toward the use of intravenous barbiturates in doses larger than 1 Gm. and longer than one hour, in spite of the opinions expressed in most of the literature and by the Council on Pharmacy and Chemistry. This is particularly noticeable since the introduction of pentothal sodium, which is more suitable for prolonged anesthesia than evipal. Pentothal sodium is more potent, provides greater relaxation, allows quicker recovery, and rarely causes muscle twitching. Nevertheless the manufacturer of pentothal sodium has continued to urge, in the pamphlet packaged with the ampoule, that pentothal "is to be used only in cases of good anesthetic risks and for operative procedures in which anesthesia for from five to twenty minutes is required." Although the manufacturer correctly insists that "only expert anesthetists should employ pentothal sodium," yet, "pentothal sodium is not recommended in major operative procedures requiring prolonged anesthesia." We believe that the time has come to modify this conservative position still held by the majority of anesthetists and surgeons.

Only a minority of the authors quoted above applied all of the safeguards now known to be required to insure the safety of the patient. Yet few of them reported any complications during or following anesthesia. None had an anesthetic death in any procedure which lasted one hour or more. The great majority of all intravenous anesthetic deaths (in fact, all of the deaths we have read of) have occurred in the first half-hour of the anesthesia and were not apparently related to the duration of the anesthesia. They

straps about the extended forearm and wrist of the upper extremity in which the anesthetic is being injected; fixation of the other arm by wrist strap or body sheet; and, wherever possible, an assistant should hold the head fixed while maintaining an open airway (this is particularly important in surgery of the head and neck, especially when an intratracheal catheter is not in place).

- 4. Have the patient well atropinized (we prefer scopolamine for resistant cases), using  $^{1}/_{100}$  of a grain, and in some cases  $^{1}/_{75}$ , but take care to avoid giving it too early or too late for the display of its full effect at the onset of anesthesia. Give repeated doses of  $^{1}/_{400}$  of a grain to  $^{1}/_{100}$  of a grain of atropine sulfate intravenously during anesthesia, depending on the need for protection against respiratory tract spasm and mucus. The tolerance of anesthetized human beings to atropine is large.
- 5. Employ local or regional anesthesia as much as possible to decrease the need for greater depth of general anesthesia and larger doses of pentothal. Surface anesthesia is regularly added just before or after the induction of pentothal anesthesia.
- 6. Expertness in the art of venipuncture is necessary and the excellent suggestions of Lundy's should be used. Insert the intravenous needle, preferably an 18-19 gage, well in the vein and very securely, otherwise it will be a continuous source of delay.
- 7. Inject small doses, 1-3 cc., of 2.5 per cent solution intermittently, allowing full time for the circulation to distribute the drug and for the central nervous system to exhibit the full effect after each injection, usually one minute. It should be given more cautiously when the anesthesia exceeds two hours or when the patient is less than a fair risk. Maintenance of anesthesia becomes easier and requires less of the drug per unit of time as the duration increases beyond an hour.
- 8. The concentration of pentothal solution should be 2.5 per cent during the first two hours and I-1.5 per cent thereafter, if the patient has not shown a high degree of resistance to the pentothal in the second hour of anesthesia. The concentrations of 2.5 per cent or less require the anesthetist to administer pentothal very gradually; they do not affect the vein even in a long operation, or the perivenous tissues when infiltrated.
- 9. Give repeated doses of morphine sulphate intravenously when the patient continues to require 0.5 Gm. pentothal doses every fifteen minutes for two consecutive quarter hours. The size of each dose may vary from 1/40 of a grain to 1/5 of a grain, depending on the estimate of the patient's resistance to the anesthetic and

the absence of pinpoint pupils and serious respiratory depression.

- 10. Maintain an infusion of saline, glucose, plasma, or blood after the operation has exceeded one hour. Start it before anesthesia if the case is known to require more than one hour or if the patient is a suboptimal risk. We use the infusion to facilitate the maintenance of pentothal injections by inserting the needle of the pentothal syringe into the lumen of the infusion tubing, very close to the infusion needle in the vein. The needle connected to the pentothal syringe should be 20–22 gage. This fine needle and a strip of adhesive along the barrel of the syringe and over the handle of the piston will prevent back-flow into the syringe.
- 11. Avoid the use of an oral airway unless the mouth and pharynx have been numbed by spraying or swabbing with a local anesthetic, for "under light anesthesia a stimulus such as that caused by an artificial airway or a foreign substance in the pharynx or larynx may initiate a catastrophe" by spasm as well as require an unnecessarily deeper pentothal anesthesia. The type of airway least likely to start a spasm in an unanesthetized tract is a nasopharyngeal tube. It is best, wherever possible, to use an airway in a cocainized pharynx and mouth. Dental and oral props should be inserted before anesthesia for intraoral and transoral operations.
- 12. Use an intratracheal airway coated with a water-soluble anesthetic lubricant, in a numbed larynx in any case in which there is marked likelihood of some interference with the airway because of the nature of the disease or operation.
- 13. Maintain a level of anesthesia as low as is consistent with the needs of the surgeon, never exceeding second plane of third stage. With an airway present in a cocainized pharynx we have been able to maintain a level so shallow that swallowing would frequently recur during operation, yet the patient would remain quiet with relaxed jaw and extremities.
- 14. Use oxygen insufflation or inhalation (depending on whether or not a closed system is desirable) at the least suspicion of anoxemia, such as undue elevation of pulse rate. We use it routinely when the patient is in poor condition at the start, the anesthesia exceeds two hours, or respiration is too depressed.
- 15. Use various mixtures of nitrous oxide and oxygen, whenever feasible, to supplement the primary anesthesia with pentothal. Ordinarily 50 per cent of each gas is supplied, never less than 20 per cent oxygen. This gaseous adjuvant moderately decreases the dose of pentothal and provides a rebreathing bag as a better indicator of respiratory movements. When one is not able to use a B-L-B or nasal mask or an anesthetic

airway and stimulation; (3) the use of all aids which decrease the dose and rate of pentothal consumption, enable the surgery to be performed with a lighter plane of pentothal anesthesia, and reduce the incidence of respiratory depression and obstruction; and, (4) finally, the correct choice of the patient for intravenous anesthesia—namely, one whose oxygen transport system can be protected and supported during intravenous barbiturate anesthesia and whose surgical procedure does not require deep relaxation.

All of these principles have as their purpose the single object that no respiratory depression or obstruction or anoxia should ever be allowed to exist for more than a few seconds. Early detection and prompt correction of anoxia are the sine qua non of intravenous as well as any form of general anesthesia. Anoxia is insidious in origin and effect during intravenous anesthesia. Therefore it is fundamental to the proper application of intravenous anesthesia for long cases that a trained observer of respiratory activity apply the method with adequate equipment at hand in the proper type of patient without seeking maximum muscular relaxation. This is nothing more than the high standard of anesthetic care insisted upon by all authorities, even for short cases, but it is absolutely necessary for the safe use of intravenous anesthesia in prolonged surgery.

If we consider the competence of the anesthetist as the most important protection, the choice of the proper type of case is only slightly less vital to the good reputation of intravenous anesthesia. This point has been fully developed by many workers as well as by the author in another report.<sup>27</sup> However, the more expert the anesthetist and the greater the effort to maintain a normal oxygen transport mechanism, the wider will be the range of cases in which the great advantages of intravenous anesthesia, especially for military surgery, may be obtained.

The 37 cases in which we have used pentothal sodium as the primary agent for one hour or more could have been multiplied many times in civilian surgery were it not for the following tendencies in our practice of anesthesiology: (1) we prefer spinal anesthesia in all good or fair risk cases for surgery below the diaphragm, especially if maximum muscular relaxation is required, and (2) we avoid intravenous anesthesia when the surgeon has a marked preference for an equally good alternate method of general anesthesia.

Thus our cases have not been many; but they were well studied because they were problem cases (as explained in a previous paper)<sup>27</sup> which were best handled by the use of pentothal sodium intravenous anesthesia. Small as the group has

been, and though they were special types in difficulty or hazard, they have clearly pointed to the conclusion that prolonged pentothal intravenous anesthesia is and can be kept safe.

Our 37 anesthesias of one hour or more in-

cluded the following cases:

Eleven cases of fenestration for otosclerosis lasting four hours to six hours and fifteen minutes, and requiring 1.75 to 4 Gm. of pentothal sodium; a seventy-minute transurethral resection in a 101-year-old psychotic male; an eight-hour cerebellar exploration in a 10-year-old boy; a four-hour laryngectomy; a three-hour radical mastectomy; a two-hour removal of tumor of orbit; a two-hour and ten minute esophagectomy; a one-and-a-half-hour suspension laryngoscopy and fulguration: a one-and-a-half-hour exploration of petrous pyramid; a one-and-aquarter-hour plastic repair of orbit in a 70-yearold male; a sixty-minute enucleation of the eye in a 66-year-old psychotic female; and a sixtyminute radical mastoidectomy in a 21-year-old toxic male.

#### Technic

We consider the following points in technic as important:

1. Premedication is desirable but not absolutely necessary. It must be administered so as to secure its maximum effect before or during the early phase of anesthesia. We prefer 1-3 grains of pentobarbital sodium two hours preoperatively, 1/6-1/4 grains of morphine sulfate with 1/100 grains of scopolamine hydrobromide one to one and one-half hours preoperatively, for good risk adults. The smaller, the younger the patient is, or the worse his condition, so much proportionately is the dose of premedication reduced. If the premedication is desirable, as it usually is for long cases, but it has not been given before the patient reaches the operating room, we use the intravenous route for both morphine and scopolamine, and then allow about ten minutes for a marked effect to appear.

2. Have the patient clear his nose and throat well before induction. This tends to avoid such respiratory irregularities as sneezing, coughing, asthmatic breathing, laryngospasm and mucous

obstruction.

3. "Restraints" are desirable but not absolutely necessary. They reduce the dosage of pentothal sodium for prolonged surgery by allowing the anesthetist an extra margin of light anesthesia. The patient may then be allowed to tense or move slightly his extremities or head with the knowledge that the "restraints" will hold the patient for the minute needed to deepen anesthesia. The "restraints" should be a broad strap just above the knees; adhesive or bandage

TABLE OF CASES REPORTED BY LT. M. H. ADELMAN

		Duration in	Pentothal Dosage
	Type of Operation	Minutes	in Gm.
1.	Débridement, closed reduction under fluoroscope, compound fracture, fibula and tibia	60	1.0
2.	Open reduction, fracture, patella	60	1,15
2. 3.	Removal of bullet, foot	65	1.15
4.	Ulnar nerve transplant	65	1.15
5.	Open reduction, fracture, olec-		
	ranon	66	1.0
ē.	Arthrotomy, knee	66	2.0
7. 8.	Arthrotomy, knee	67	1.2
a.	Open reduction, fracture, head		
9.	of radius Débridement and repair, lacera-	70	1.27
	tions hand	70	1.5
10.	Removal of exostosis, scaphoid		
	bone, foot	70	2.9
11.	Arthrotomy, knee	82	2.06
12.	Removal of wire and screw.	0=	
	patella	85	1.7
13.	Arthrotomy, knee	ğŏ	1.2
14.	Open reduction and débride-		
	ment, compound fracture,		
	forearm	120	2.3
15.	Open reduction, dislocated ten-	120	4.0
	dons, fascial graft	130	2.6
16.	Debridement and removal of	100	2.0
	shrapnel, hand and leg	140	1.5
17.	Open reduction and débride-	140	1.0
	ment, compound fracture,		
	tibia	150	1.75
18.	Open reduction, fracture,	100	1.10
	humerus	150	2.15
19.		100	2.10
	Open reduction, fracture, hum-	165	1.25
20.	erus and scapula, mild shock Removal, osteophytes, ankle	103	1.20
	Removal, osteophytes, ankle	180	2.33
21.	joint, repair of ballux valgus	100	4.00
	Open reduction, fracture, hum- erus, tibial bone graft	180	2.8
	cius, tibiai bone grait	100	4.0

wounds, and 15 widely excised extensive wounds. Premedication was 1/4-1/3 of a grain of morphine sulfate, injected intravenously; no untoward effects of this practice were encountered. tothal proved invaluable and . . . is the anesthetic of choice in 9 cases out of 10." There is no statement of the length of anesthesia in Major Cope's cases, but the detailed description of the operations leaves no doubt that a large number were one hour or more in duration in seriously ill patients. One of every three patients operated on required transfusion. There were six deaths, a mortality of 1.8 per cent. Only one of these was attributed to the anesthetic, in a severely wounded patient in poor condition. The absence of details in this report prevents us from determining whether the patient was surrounded by the precautions described above and now available in most units where major surgery is performed in the zones of operations, communications, and interior. It is worthwhile to quote certain remarks of Major Ascroft. "Anesthetists should have at least one year's special training. It is a dangerous fallacy to suppose that a rag and bottle in the hands of any medical officer temporarily unemployed is good enough. The anesthetist must be a sound doctor and capable of running two cases at a time . . . . Forward surgery in busy times is a kind of mass production."

Pentothal sodium anesthesia for long cases is therefore applicable to a large percentage of military surgery. In fact, we cannot see how one can avoid using it. Many reports attest to the special adaptability of intravenous anesthesia to war surgery. The equipment for administration is simple and small; it is easy to sterilize, transport, and assemble. Because induction is quick, intravenous anesthesia is advantageous for casualties arriving in large numbers or for the many who are likely to be resistant to general anesthesia because of severe pain, excitement, hysteria, or lack of cooperation. Traumatic, thermal, blast, and gas injuries of the head, neck, and respiratory passages are best anesthetized with intravenous anesthesia when a general anesthesia is necessary. It also provides a noninflammable system which permits the safe use of cautery, diathermy, and x-ray apparatus, and removes an additional explosion and fire hazard in case of enemy attack. If these and many other advantages of intravenous anesthesia are to be exploited only for short cases. a severe limitation is imposed on its usefulness in military surgery. A large number of procedures require surgery for a duration which cannot be predetermined, because wounds and foreign bodies may prove to be more difficult to treat than anticipated. It is, therefore, especially important that general acceptance be given now to the removal of the time and dosage limits on intravenous pentothal sodium anesthesia.

The safety of intravenous pentothal anesthesia in the presence of shock and high sulfonamide blood levels must be considered. The Mayo Clinic group of anesthesiologists and research workers34 believe that barbiturates tend to delay the onset of shock and diminish its severity. Lundy, Adams, and Searles have successfully given intravenous pentothal for patients in shock, who simultaneously received specific therapy for shock. Their experiences have been duplicated by Lt. Adelman, Major Cope, and many others. These results were achieved by the simultaneous use of specific shock therapy, oxygen, and minute doses of pentothal sodium, as little as 2 cc. of 2.5 per cent solution for an amputation of an arm. "It is amazing how little of the drug will provide relaxation for such patients." No definitive study of a large number of shocked patients has been published to decide the relative safety of pentothal in such cases. On the evidence available at present we believe there is justification for its use, in the absence of cyclopropane, for a shocked casualty requiring general anesthesia, provided he receives minimal doses of pentothal, inhalation of oxygen, and a simultaneous infusion of plasma or blood.

rebreathing bag, the best guide to the depth of respiration is the visible or palpable movement of the upper abdominal wall.

16. The depth, rate, and character of respiration is the most reliable index of depth of anesthesia, after the patient fails to respond to painful skin stimulation. The cutaneous zone and the respiratory tract are the most sensitive areas for the production of reflex movements. Local or block anesthesia for these areas greatly decreases the dose of pentothal.

17. Reduce the depth of anesthesia in the closing stage of the operation so as to have the patient reacting to skin stimuli at the end.

18. Three to five cubic centimeters of coramine, or 1-2 cc. of metrazol, 30 intramuscularly or intravenously, depending on the final depth of anesthesia, should be injected at the close of the operation and repeated every half hour, when it is desirable to obtain the earliest awakening. We use it routinely at the end if the dose of pentothal has exceeded 2 Gm. or the general condition of the patient was suboptimal prior to or at any time during anesthesia.

19. Blood pressure determinations are not routinely taken because we have found them not to be significantly elevated or depressed by the anesthesia. When the surgery is quite traumatic, the blood loss significant, or the patient's preoperative condition poor, we do record blood pressure at frequent intervals.

#### Application to Military Surgery

Lundy has predicted that intravenous barbiturates will be used more often than any other type of anesthetic. Wiggin<sup>31</sup> has stated that it is already the most common general type of anesthetic in service for cases not requiring deep relaxation. Many reports from abroad, especially England, have provided the basis for these statements.

Prolonged intravenous pentothal anesthesia is becoming applicable at any point in the line of the evacuation of the wounded from the casualty clearing station back to the general hospital because favorable conditions are growing more widely disseminated with the greatly enlarged number of trained medical anesthetists in the armed forces and the increasing availability of oxygen apparatus.

In considering the type of cases in which intravenous anesthesia for prolonged surgery would be indicated, we must remember that the exigencies of the military situation may require that contraindications respected under normal conditions be brushed aside. Then one must exert extra effort to prevent complications and one should provide compensatory therapeutic measures to bolster the patient. Most categories

of war injuries are quite suitable for prolonged intravenous pentothal because they require little or only moderate depth of anesthesia. Examples are débridement of burns and wounds, removal of foreign bodies, reduction of fractures, peripheral nerve repair, amputations. For such casualties as penetrating thoracic and abdominal wounds, intracranial injuries, shocked cases requiring urgent surgery, and traumatic and inflammatory encroachment on the respiratory tract, we would not prefer intravenous anesthesia if anesthetic gases or regional blocks could be employed. Yet even these cases have been safely anesthetized for long major procedures by expert anesthetists who guarded the patient with appropriate airways, transfusion, oxygen, and minor complementary anesthetics while employing minimal doses and levels of pentothal anesthesia.

For the dark side of the picture we have found no better expression of the danger of indiscriminately using intravenous pentothal, even for only short cases, than the report of a civilian surgeon, Halford.32 He has severely condemned it on the basis of his observations at Pearl Harbor, where several deaths occurred. Without anesthetists and adequate means of supplying oxygen and plasma, we should expect seriously wounded patients, insufficiently treated for shock, to be asphyxiated by intravenous anesthesia. It should not have been used under these conditions, for they were the very same conditions, of inadequate anesthetic care and poor risk patient, which were responsible for most of the deaths early in the development of evipal anesthesia.

The author's own experience in military service has been so limited that he has had only a few opportunities to apply intravenous pentothal for surgical procedures of an hour or more. The cases and the conditions of our military anesthetic practice have been very much like those met in civilian surgery where spinal and regional block anesthesias are the methods of choice. However, we were requested to show the applicability of prolonged intravenous anesthesia to war surgery. We can do it by describing the experiences of two expert anesthetists who have had the opportunities which we expect to duplicate. With the permission of Lt. Milton H. Adelman, who was influenced by the author to apply this method, we are able to report the following 21 unpublished instances of prolonged pentothal anesthesia.

The other anesthetist is Maj. R. W. Cope, with a British mobile surgical unit, whose experiences in the Western Desert were reported briefly by Maj. P. B. Ascroft.<sup>33</sup> There were 93 minor and 239 major operations, including 27 eranial procedures, 14 penetration thoracic or abdominal

prepared for general distribution to all medical officers, describing in detail its technic and limitations.

In civilian practice we have been using it in: (1) brain surgery; (2) as an adjunct to continuous spinal anesthesia, for patients, unsuitable to be awake, and for control of nausea; (3) eye surgery; (4) débridement of burns and in skin grafts; (5) cesarean section; (6) urological and dental cases; (7) and in cases where a nonexplosive anesthetic is the one of choice, where nitrous oxide is insufficient for the contemplated procedure.

There are many technical aids available. We often use a direct transfusion outfit or a two-way stopcock to which intravenous fluids may be attached. In cases where a face mask is unsuitable, we use a nasopharyngeal tube for the administration of continuous oxygen. A length of small rubber tubing may connect needle and syringe, thereby allowing the anesthetist to use both hands. Some devices also clamp the syringe to the table.

I feel that these indications and technical aids so widely used in civilian practice can easily be adapted to military use.

With regard to use of intravenous pentothal sodium in cases of shock, my opinions are in accord with those of Dr. Beecher—that we do not have sufficient similar cases in civilian practice to compare with seriously wounded patients encountered in warfare, because operation is usually delayed until the patient's condition has improved as much as it will without surgery. Dr. Beecher thinks that the barbiturates do not delay shock which has been produced by bleeding or hemorrhage, but appear to delay it only when the chief shock-producing trauma is dehydration or plasma loss from wound surfaces. Lundy, Adams, and Searles state that when pentothal is administered early, before shock has become severe, it may aid in delaying its onset.

Recently Drs. Gray and Adams reported its successful use in the case of a seriously wounded civilian patient, which was comparable to military surgery.

The use of pentothal in combat areas entails the employment of certain precautions, the first of which is the realization of marked individual variation in dosage. We must also remember that most authorities still feel that it should be used only in cases in which no great muscular relaxation is required. Consideration of previous dosage of morphine is also of prime importance.

In severe shock or in seriously wounded patients only minute, intermittent, and small total dosages of weak solutions should be used, and an ample supply of oxygen, to be administered simultaneously, must be available.

The success of prolonged intravenous pentothal anesthesia in military surgery will depend for the most part upon the skill of the person administering it and his full knowledge and appreciation of its limitations.

#### STUDY VETERANS' EMPLOYMENT PROBLEMS

Specific instructions in handling veterans' employment problems are being given all employees of the United States Employment Service, Paul V. McNutt, chairman of the War Manpower Commission, has announced.

Mr. McNutt said that this was in line with an agreement just concluded between the War Manpower Commission and the Selective Service whereby WMC assumes the entire responsibility for placing the returning veterans in new jobs. Under the agreement, he said, the Selective Service will make the veteran's re-employment in his old job its special responsibility but WMC is to take over if the veteran is not interested in going back to his

lormer employer.

The War Manpower Commission and the Selective Service are in complete unity on the problem of returning the discharged veteran to civilian life," said Mr. McNutt. Training programs are being installed in all of the United States Employment Service's 1,500 offices. Each member of the local office staff is being given an extensive course of instruction in veterans' problems. Mr. McNutt said that each office will have, as in the past, its special Veterans' Employment division representative and, if the load is sufficiently heavy, other experts with specialized experience in handling veterans' employment problems. The entire staff, however, will be

made aware of the various avenues to employment open to the veteran—such as, for example, training and rehabilitation.

"This means," said Mr. McNutt, "that the entire 22,000 employees of the USES will participate in the program."

Biregional conferences are now being held throughout the country in connection with this training program. Attending this conference are state WMC officials, State Veterans' Employment representatives, and representatives of the WMC

regional offices.

Tests of new technics and methods of handling veterans' problems are now being made in seven USES offices, picked as demonstration centers for the variety of problems they represent. These offices are at Los Angeles, Houston, St. Louis, Minneapolis, Philadelphia, New Haven, and Denver.

The tests were completed April 1 and the program developed will be ready, with modifications to meet local needs, for installation in all of the 1,500 USES offices. The training now under way in the USES field is shaped to fit into this larger program. The Federal Civil Service Commission will continue to exercise jurisdiction over the placement of veterans in the Federal executive civil service.—Release from the Office of War Information

As to whether there is any increased depressive effect of pentothal sodium on patients under sulfonamide therapy, we are not aware of any human case in which this supposed synergism has been proved. The consensus of clinical experience in British circles 35,36 is that sulfonamides are no contraindication to intravenous pentothal. However, if the patient is cyanotic from a sulfonamide and is about to receive an intravenous, or any general anesthetic, the anesthetist is faced with a real problem. For he is deprived of the important sign of skin color which is a valuable clinical guide to the degree of anoxemia present. The anesthetist may use 100 per cent oxygen inhalation prophylactically. 37 but this is a poor solution of the difficulty, because it does not remove the cyanosis of sulfonamide origin. A patient may breathe 100 per cent oxygen and yet suffer anoxemia because of respiratory or circulatory depression. A better method38 is to remove the cyanosis before operation by the use of methylene blue, which converts methemoglobin to hemoglobin. If twentyfour hours are available preoperatively, one may use 6-12 grains of methylene blue, given orally in six divided doses. With the intravenous route Hewer<sup>38</sup> has removed the cyanosis within ninety minutes by injecting 0.5 mg./Kg. of methylene blue in solution. It is entirely innocuous and is especially suitable for emergency military anesthesia on casualties heavily dosed with sulfonamides.

#### Conclusions

Intravenous pentothal sodium anesthesia for one hour or more is safe for operations requiring little or moderate relaxation, provided the proper safeguards are available. The sine qua non for the continuation of the excellent record of prolonged pentothal anesthesia in civilian and military surgery is close observation of the patient, the detailed knowledge and meticulous technic provided by an expert anesthetist. Like cyclopropane, prolonged pentothal anesthesia is decidedly not for the novice or technician.

#### Summary

We have traced the increasing use of intravenous barbiturates, especially pentothal sodium, for anesthesia of one hour or more. Its record of mortality has been practically nil. We have been able to report the application of prolonged pentothal, under safeguards which have been fully described, to 5S cases suitable for intravenous anesthesia of one hour or more. Pentothal anesthesia was given one patient for eight hours, another for more than six hours, six patients for five hours or longer, five patients for

four hours or longer, three patients for three hours, eight patients for two hours or more, thirty-four patients for one hour or more. No death or serious complication was encoun-

The applicability of prolonged pentothal anesthesia for a large part of military surgery has been stressed by the presentation of cases and reports from the literature.\*

\*Added experience with military casualties in a general hospital has confirmed the experiences and conclusions stated in the article.

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#### Discussion

Dr. Rose M. Lenahan, Buffalo-It is a pleasure to express admiration for Captain Greene's comprehensive paper.

In a review of the literature for 1942, Lundy, who was the pioneer in intravenous pentothal anesthesia,

feels that it continues to be the best agent. Lt. Col. Types has stated that the Surgeon General places so much importance on intravenous anesthesia for wartime use that a manual is being

TABLE 1.—General Data Regarding Patients Treated at the Inhalation Department of Sabatoga Spa, 1938-1939

	Men				-Women-		Total			
Condition Treated	Trial	Regular	Total	Trial	Regular	Total	Trial	Regular	Total	
Sinusitis Coryza Bronchitis Rhinitis (chronic)	77 19 25 25	101 108 51 43	178 127 76 68	72 7 13 16	141 89 49 36	213 96 62 52	149 26 38 41	242 197 100 79	391 223 138 120	
Asthma Hay fever Laryngitis Rhinitis (allergic) Pharyngitis	23 3 6 3	10 11 13 14 8	19 34 16 20 11	4 8 3 2 2	28 5 14 11 6	32 13 17 13 8	13 31 6 8 5	38 16 27 25 14	51 47 33 33 19	
Total ·	190	359	549	127	379	506	317	738	1,055	

the number of treatments taken is shown in Table 2.

The majority of the patients took from one to five treatments although a sufficient number took more than five treatments, permitting further analysis of the relation between the number of treatments and the results obtained.

The 738 patients who took regular treatments have been classified in four groups on the basis of relief obtained. For this purpose the following criteria of the results of treatment were used:

Group 1. No change—no influence noted in symptoms following treatments.

Group 2. Temporary—slight or temporary relief of symptoms noted for a short time following treatment.

Group 3. Moderate—partial to complete relief obtained during course of treatment.

Group 4. Marked—complete relief of symptoms which persisted for an indefinite time after the course of treatment.

Opportunity was not available to study the patients following treatment with roentgenograms or other objective measures. However, the number of patients who returned for treatment during the second year was sufficient to establish the fact that in some patients the relief obtained was permanent.

To determine the length of an optimum course of treatment, the average number of treatments taken by the patients in each group, as classified for the relief obtained, was calculated. The data regarding the results of treatment and the average number of treatments taken by the patients in each group are presented in Table 3.

The striking relation between the number of treatments taken and the results obtained is shown graphically in Chart 1. This is best noted in curves 1, 3, 4, 5, and 7, which represent chronic or prolonged disorders of the respiratory tract, while in curves 2, 6, 8, and 9, which represent acute conditions, better results with a relatively smaller number of treatments are evident.

The patients were all ambulatory and came to the inhalatorium for their treatment, for the

most part daily, or in some cases three times a week.

#### Nature of Waters and Medications

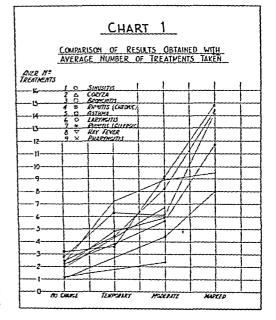
#### A. Mineral Waters

1. Saratoga Geyser Water contains 2.5 Gm. of sodium chloride and 5.0 Gm. of sodium, calcium and magnesium bicarbonates per liter and is supersaturated with carbon dioxide. The total mineral concentration is only slightly below that of physiologic saline.

2. Saratoga Hathorn Water contains 8.6 Gm. of sodium chloride and 6.1 Gm. of the combined bicarbonates and is super-saturated with carbon dioxide.

#### B. Medications

1. Glycirenan (Silten) contains 0.1 per cent epinephrine, 0.7 per cent chlorbutol, and 30 per cent glycerin.



# INHALATION THERAPY USING MINERAL WATERS AND MEDICATED OILS

WALTER S. McClellan, M.D., Saratoga Springs, New York, with the technical assistance of Margaret Rogers, R.N.

MANY forms of therapy, including vapors, irrigations, drops, topical applications, "benzedrine inhalers," and surgical measures, are used in the treatment of respiratory ailments. Various chemical and biologic preparations are applied for their antiseptic, astringent, and vaso-constricting effects.

Inhalations of epinephrine preparations, with the respiratory tract as the portal of entry, are used in the treatment of patients with bronchial asthma, and pituitrin is used for diabetes insipidus.

An evaluation of the results with inhalations of mineral water supplemented by medicated oils is presented herein. The finely nebulized water, including its mineral constituents and gaseous components, is introduced into the respiratory tract. The objects of the treatment are to remove deposits, improve ciliary action, increase circulation, reduce congestion, and promote drainage.

#### Literature on Inhalation Therapy

Similar treatments have been developed extensively at Bad Ems, Bad Reichenhall, Mont-Dore, and other spas abroad. Diener, of Bad Ems, reports generally good results from inhalations of the mineral water combined with its use internally in patients with chronic catarrhs of the upper air passages and also in chronic bronchitis. Also, when this treatment is combined with pneumatic chamber treatment, the patients with emphysema and asthma obtain relief.

Diener<sup>2</sup> reports that 60 per cent of a series of patients with asthma were relieved completely or were very much improved following the program at Bad Ems. In a small group of patients who were treated in addition with a foreign protein and roentgen rays, 10 out of 12 received definite relief.

Graeser<sup>3</sup> found consistently good results in treating patients with bronchial asthma with the inhalation of epinephrine 1:100. The results with weaker solutions were less consistent. He noted that "Several patients reported good relief on some occasions from salt solution alone." This observation may be of some significance in showing a possible influence of saline solutions on the sensitivity of the mucous membranes in

some patients. He noted that a few patients complained of dryness in the throat and increase of cough. Only rarely did he observe general reactions to the medication. These included headache, palpitation, and tachycardia.

Galgiani and his coworkers<sup>4</sup> studied the inhalation of epinephrine in animals and concluded that the effective dose was considerably less when inhaled than when given by other channels. They concluded that the effect was produced by local action on the mucous membrane because they found little influence on the pulse and blood pressure in the animals studied. These authors, and also Fox,<sup>5</sup> found some evidence of denuded mucous membranes, particularly with epinephrine 1:100, which they considered was caused by local vasoconstriction and tissue anoxemia.

Weiss<sup>6</sup> has recently discussed the general phases of inhalation treatments with saline waters and other medications.

Holinger, Basch, and Poncher observed the viscosity, the pH, and the chemical content of sputum obtained by bronchoscope from the major and the terminalb ronchi following the administration of expectorant drugsand steam and gas inhalations. They report that inhalations of steam, highly humidified air, and carbon dioxide all act to liquify the tenacious secretions of the bronchial tree, while in contrast the inhalation of oxygen acts as an antiexpectorant.

#### Material Studied

The inhalation department at Saratoga Spa has been in operation for the past eight years. This report is based on the study of 1,055 patients treated during 1938 and 1939. They represent a variety of respiratory disorders. Table 1 includes a summary of the number of patients, their sex, and the conditions for which they were treated.

Of the 1,055 patients treated, 549 were men and 506 were women. The large majority were adults, except for 12 children who were treated principally for bronchial asthma.

In all conditions except coryza, when the patient took only one treatment, it was classified as a trial treatment and excluded from the later detailed analysis of the results of treatment. Patients with acute coryza often experienced relief after one treatment. Three hundred and seventeen patients took only a trial treatment.

The distribution of the patients on the basis of

From the Medical Department of The Saratoga Spa, Saratoga Springs, New York:

TABLE 3 —Classification of the 738 Patients on the Basis of Relief Obtained and the Average Number of Treat ments Taken by the Patients in Each Group

			Temporary	Improvement	Moderate I		Marked Improvement		
Diagnosis	No of Patients	Average No of Treatments	No of Patients	Average No of Treatments	No of Patients	Average No of Treatments	No of Patients	Average No of Trestments	
Einusitis Cory za Brouchitis Rhinitis (chronic) Asthma Laryngitis Rhinitis (allergic)	50 57 30 27 6 4	2 2 1 2 2 2 4 3 2 1 0 2 4	18 17 5 5 1	3 8 (9 0)* 6 3 4 4 3 6 (2 0)*	160 138 58 42 22 19	5747718391444990	14 15 55 55 55 55	11 7 (6 0)* 14 2 14 4 14 8 8 0 9 6	
Hav fever Pharvngitis Total Total percentage	$\frac{\frac{3}{1}}{185}$	(2 0)*	0  47 6 4%	4 8 0 0	13 468 63 4%	6 7	0  38 5 2%	0 0	

<sup>\*</sup> The figures in parentheses represent only one patient so their cannot be taken as averages

previous course of treatment, and they reported that they had less frequent and less severe recurrences during the winter following their course of treatment.

Case 1—A woman, 65 years old, reported a chronic sinus inflammation and sore throat for years with recurrent attacks, particularly in the frontal sinuses, causing severe headaches

From September 30, 1938, to October 14, 1938, she took thirteen inhalations using the general program outlined above. She experienced relief of persistent discomfort, and increased ability to breathe through her nose.

On May 1, 1939, the patient reported that while she had some discomfort through the winter, with one acute exacerbation, she had much less disturbance and pain was less severe than during the recent years before she had taken the inhalations, when she frequently had three or four acute attacks From May 1, 1939, to May 20, 1939, she took eighteen treatments and felt well. On October 31, 1939, she reported that the relief obtained after the last series of inhalations has continued during the interim. Between October 31, 1939, and November 16, 1939, she had eight treatments.

This patient was classified as obtaining moderate relief

Case 2—A woman, 46 years old, stated that she has required frequent packs and suction treatment for her sinus condition for four years

From August 9, 1938, to August 27, 1938, she received seven treatments and experienced complete rehef of her headaches and marked improvement of nasal congestion. On August 10, 1939, this patient reported that she had not visited her physician during the winter and had experienced only two mild attacks. From August 10, 1939, to August 28, 1939, she had eight treatments and reported that she was free from symptoms.

This patient was classified as obtaining marked relief

2 Coryza.—In this group 197 patients with acute "cold in the head" characterized by sneezing, musual congestion, watery discharge from nose, and lacrimation, were treated. The usual program included from one to three or four treat-

ments which routinely consisted of ten to fifteen minutes in the cabinet, followed by jodirenan by nasal tips for five minutes at low pressure to prevent any possible spread, and chlorenan for five minutes.

It was found that 49 patients experienced real relief with one treatment and 47 with two treatments, while only 5 patients of those who did not obtain relief took more than one treatment. It appears that two to three treatments are necessary to obtain the best results

The natural course of a "cold in the head" varies with different people Even without treatment a considerable number have symptoms for only one, two, or three days, while many others will have congestion for from four to seven days. In observing the patients treated, nearly all had some temporary rehef for a few hours after the first treatment and were relieved after the second or third inhalation pression prevails that the infection spreads less frequently to the throat and chest in the treated patients than in a comparable group not so Because of the natural variability in treated this condition, all patients who obtained relief were classified as moderately relieved.

Case 3.—A woman, 60 years old, stated that she has had a "cold" for two days with difficulty in breathing through the nose and some burning of the eyes. There has been no sore throat. She took four treatments and reported definite relief after the second treatment. At the end of the course she was free from congestion.

Case 4—A man, aged 45, complained that he had had watery discharge from the nose and definite difficulty in breathing through the nose for the preceding twenty-four hours. He also had lacrimation. He had no throat or chest symptoms. After two treatments he noticed definite relief.

3 Bronchitis —Included in this group were 100 patients who for the most part suffered from chronic cough with some expectoration and usually with some difficulty in breathing Twenty-six patients were suffering from an

TABLE 2.—DISTRIBUTION OF THE NUMBER OF PATIENTS TREATED ON THE BASIS OF THE NUMBER OF TREATMENTS TARKS

Condition Treated Sinusitis Coryra Bronchitis Rhinitis (chronic) Asthma Laryngitis	Trial 149 26 38 41 13	1-5 165 182 61 43	6-10 47 14 28 22		reatments— 16-20 4 0 1 6 4	21+ 5 0 1 1	Total Regular 242 197 190 79 38	Grand Total 391 223 138 120
Rhinitis (allergic) Hay fever Pharyngitis	8 31 5	18 14 12 8	8 7 2 3	1 2 1 2	0 1 1 1	0 1 0 0	27 25 18 14	33 33 47
Total	317	518	140	51	18	11	738	1,055

- 2. Glycircnan-Forte (Silten) same as glycircnan, except that it contains 0.2 per cent epinephrine.
- 3. Jodirenan (Silten) contains 0.1 per cent iodine, 0.1 per cent epinephrine, 0.1 per cent sodium iodide, and 30 per cent glycerin.
- 4. Chlorenan (Silten) contains 1 per cent chlorbutol, 1 per cent menthol, and 2.5 per cent camphor in a special solution for inhalation.
- 5. Inhaledrin-Compositum (Silten) contains 5 per cent ephedrine hydrochloride, 0.06 per cent epinephrine, 2.7 per cent chlorbutol, and 30 per cent glycerin.
- 6. Adrephine Inhalant (Parke-Davis Co.) contains 0.01 per cent adrenalin, 1 per cent ephedrine hydrochloride, 1 per cent benzocaine, 0.5 per cent chloretone, 12 per cent alcohol, and glycerin.
  - Oil of Pine Needles—4 parts.
     Oil of Eucalyptus—1 part.

#### Methods of Application

The waters and medications were administered either by direct or indirect inhalation.

In the direct (table) inhalation, the Geyser water was used in the Atmos brine dispenser (Silten Co.), where it was warmed to approximately 80 F, and nebulized into a fine mist by compressed air. Suitable attachments permitted the inhalation of this mist through the nose, thus affording direct contact with the mucous membranes of the nasal and adjoining air spaces, or through the mouth, where the mist reached more directly into the lower air passages.

The medicated oils were nebulized into fine particles in the Spiess tube with a small glass vial permitting the use of 0.5 to 1 cc. of the medication for each treatment. Attachments allowing direct inhalation included two glass tips inserted into the nose for application to the upper respiratory tract and a mask for general administration.

For indirect (cabinet) inhalation the Hathorn water was nebulized in a larger dispenser so that the mist filled the cabinet. The air of the cabinet was slightly warmed. Oil of pine needles and oil of eucalyptus in combination were added to the air of the cabinet, using a Spiess tube unit. The patient sat in the cabinet and normally inhaled the atmosphere containing the finely nebulized mineral water mist.

#### Conditions Treated

1. Sinusitis.—The largest single group of patients, 242, or one-third of all patients, had a history of chronic sinus inflammation usually lasting over a period of years. Forty-six patients in this group took the treatment for an acute or subacute exacerbation of their condition. They were suffering pain over the involved sinus and blocking of nasal passages. In general they were afebrile.

The program of treatment included the administration of glycirenan by nasal tips for five minutes, followed by table inhalation with nasal outlet for ten minutes, and ending with chlorenan by nasal tips for five minutes. Other combinations of water and medications were tried but none gave the consistent relief found with the above combination. In some patients, adrephine inhalant was substituted for the chlorenan with fair results.

The patient with acute symptoms usually experienced some relief with the first treatment and definite relief of pain associated with profuse drainage after the third or fourth treatment. From seven to ten treatments were required to give more lasting relief.

In the patient with only the chronic condition, some relief was obtained after four to five treatments and the best results by taking from six to eight treatments on successive days, followed by approximately the same number on alternate days

In the series of patients treated, the larger number, 160, experienced moderate relief even though they took on the average only 5.7 treatments. The 14 patients who obtained marked relief took an average of 11.7 treatments. It is evident that the patient with sinus inflammation should take a series of from twelve to fifteen treatments in order to obtain definite relief.

In this group 24, or 10 per cent, had taken a

5. Bronchial Asthma.—In a small series of 38 patients who had a history of asthma the results were encouraging.

The program generally used was the cabinet for ten to twenty minutes, followed by chlorenan by nasal tips for five minutes, and glycirenan by mask for five minutes. It was necessary in some patients to omit the cabinet and use the table inhalation. In a few patients jodirenan was used in place of glycirenan because of an associated infection.

To obtain the best results it was necessary to take from ten to twenty treatments. Those who obtained moderate relief averaged 9.1 treatments and those with marked relief averaged 14.8 treatments. The daily use of the treatment prolonged the interval between severe attacks.

Five patients were temporarily relieved from acute attacks only; 22 experienced more relief with less severe and less frequent attacks; and 5 patients obtained prolonged relief. These differences in response will be indicated in the individual histories.

Five patients returned for subsequent courses of treatment and reported that the interval was characterized by continued improvement as compared with the period before the inhalations.

Case 9.—A woman of 23 had had asthma for five years. For five months she had not been able to sleep without an ephedrine capsule to control paroxysms. The patient was thin and highly nervous.

From June 20, 1938, to July 18, 1938, she took seventeen treatments. During the first two or three treatments she expectorated a considerable amount of thick, yellow mucus and continued to expectorate later. During the fourth treatment she had a severe paroxysm following the use of the cabinet, which was relieved by inhalation of 0.5 cc. of epinephrine chloride 1:1,000. After six treatments, less difficulty in resting was noted, and after the eighth treatment she rested at night without ephedrine for the first time in five months. The improvement continued with less frequent and less severe attacks. Undue excitement would still precipitate mild attacks.

On September 15, 1938, the patient reported that she had had no asthmatic attacks since the end of her course of treatment. On November 21, 1938, she reported entire freedom from attacks and a gain in weight of 11 pounds. July 21, 1939, she reported that there had been no return of her asthma.

This patient obtained relief from the treatments with drainage of nasal infection, improved rest, and gain in weight. Her case illustrates the importance of general as well as local treatment. She was classified as obtaining marked relief.

Case 10.—A school girl, aged 13, had asthma for seven years. Skin tests showed sensitivity to dust and ragweed. The attacks may be precipitated by these agents and also by colds, strenuous exercise, fatigue, and excitement.

From September 27, 1938, to November 12, 1938, she took twenty-seven treatments of the regular type. She reported less frequent attacks during this period, one precipitated by playing soccer and one from fatigue and excitement. On January 4, 1939, she reported that there had been little trouble for the past two months and that she had just contracted a cold. She took 5 more treatments.

During the next year she continued her school work with only an occasional attack, which was precipitated usually by excessive fatigue.

The response to treatment by this patient was classed as moderate and, as is common, continued attention to the general factors, including rest, is important.

Case 11.—A 30-year-old housewife, seven months pregnant, gave a history of an attack of angioneurotic edema eight years previously, and skin tests one year before had shown that she was sensitive to fats, fish oil, and some starches. She had had autoinjections of her blood followed by relief. Her present attack started March 27, 1939, and she was hospitalized for rest and care. While she obtained relief following injections of epinephrine, the side-effects of headache and tachycardia were distressing.

From April 4, 1939, to May 2, 1939, she received twenty-one regular treatments and during that time was able to rest well, except for one night when she received an injection of epinephrine.

The treatments gave almost complete relief without any of the side-effects that occurred after injections of epinephrine. On May 3, 1939, her full term, a normal child was born. One month later the patient reported that she had been free from attacks since the birth of her child. She was classified as having obtained marked relief.

6. Laryngitis.—The patients in this group were characterized by acute irritation in the throat, associated with huskiness of voice. A few patients suffered from chronic or repeated difficulty of a similar type.

In the acute condition, treatment included the cabinet for from ten to twenty minutes, followed by chlorenan by mask for ten minutes. For the chronic condition, the table inhalation with mouthpiece was substituted for the cabinet.

The average number of treatments taken by the patients who obtained moderate relief was 4.4, while 3 patients with marked benefit took 8 treatments. Benefit was noted when cough was relieved, voice improved, and irritation decreased. In the acute type four or five treatments usually resulted in relief, while in chronic disturbances from 8 to 12 treatments were necessary.

Case 12.—A woman, 58 years old, reported irritation in throat and huskiness of voice periodically for five years. She had been much worse for the past week with marked huskiness.

She had fifteen treatments between October 5, 1939, and October 21, 1939. After the fourth treatment improvement in her voice was observed and she was able to rest comfortably at night. At the

exacerbation of the condition, giving acute symptoms. This condition is not infrequently associated with disorders of the heart and circulation which are commonly treated at the Spa.

The treatment here was principally by mask in order to get more complete penetration throughout the bronchial tree, using the table inhalation by mouth for ten minutes followed by chlorenan by mask for ten minutes.

A few patients with more acute symptoms were treated in the cabinet and when cough with expectoration was prominent, jodirenan by mask was given for five minutes after the Geyser water.

The patients who received moderate benefit took on the average 6.1 treatments. The figure of 6.3 treatments for patients with temporary relief is unduly high because of one patient who took a long series with only slight improvement. This patient's condition was complicated by emphysema.

The 30 patients who showed no change took on the average 2.7 treatments, while the 5 who obtained the greatest relief had an average of 14.2 treatments. It appears that the patient with chronic bronchitis should take from twelve to fifteen treatments on successive days, while the patients with acute symptoms require six to eight treatments for good results.

In analyzing the results of treatment, 58 per cent obtained moderate relief as evidenced by disappearance of the cough or definite reduction in its severity, thinning of the material expectorated, reduction in tightness through the chest, and increased comfort in breathing. Marked relief was difficult to obtain but complete relief of these symptoms was noted in 5 patients who took the longer courses of treatment.

In the group were 6 patients who had taken a course of treatment before and who reported that during the intervening winter they had had less difficulty with cough and breathing than they had had for several previous winters.

Case 5.—A woman 65 years old had had an irritating cough at intervals since a severe attack of bronchitis two years before. She took six treatments and experienced relief from her cough which, while still present, was much less frequent and severe.

This patient was classified as having moderate relief.

Case 6.—A man of 54 had complained of dry, irritating cough and a feeling of heaviness in the chest for some years. He had fourteen treatments. After the first week he expectorated a thin colorless mucous material and had less tightness in the chest.

At the end of the course he reported that he coughed only occasionally, and that his chest was free, and that his breathing was not difficult.

This patient was classified as obtaining marked relief.

4. Chronic Rhinitis.—In this group were 79 patients whose main complaints included a fullness in the back of the nose, posterior nasal accumulation of a tenacious, sticky secretion which would drop into the throat at night and cause cough in the morning, dryness of the nose and throat, and, in a few patients, a disturbance of hearing. The symptoms were chronic in nature and had persisted usually for years.

This group of patients responded best to the table inhalation with nose outlet for ten minutes, followed by chlorenan by nasal tips for ten minutes. The number of treatments taken averaged 8.3 for those who obtained moderate relief and 14.4 for the small group who benefited markedly.

As to results noted, 42 patients experienced moderate relief as indicated by a thinning of the tenacious mucus which could be more easily removed, a diminution of the secretion, and less difficulty in breathing.

Case 7.—A physician, 35 years old, for years had had chronic inflammation of the nasal passages with some acute attacks and with periodic disturbances of hearing which required instrumental treatment.

From September 27, 1938, to November 18, 1938, he received a course of twenty-three treatments of the type outlined above. He took the treatments daily for two weeks and then three times a week. His breathing was easier, and local treatment of the eustachian tube was much less painful. The secretion was less tenacious.

On June 16, 1939, he contracted a "head cold," but did not suffer from any ear complication as had commonly occurred in the past.

The result obtained in this patient was classed as moderate relief.

Case 8.—A tree surgeon, aged 40, suffered from thick sticky mucus accumulating in the throat in the morning. At times it produced nausea through gagging and caused considerable difficulty until nose and throat were cleared. He also noticed some disturbance of sleep from difficulty in breathing through his nose.

From September 30, 1938, to November 26, 1938, he received twenty-four regular treatments, the first nine on consecutive days and the rest three times a week. After five treatments the patient reported better rest and less mucus in the morning. At the end of the course he was practically free from symptoms.

He reported on February 14, 1939, that he had had no disturbance during the interval even when he was working in a dusty atmosphere. On May 24, 1939, he reported some headache and secretion while spraying trees. On July 5, 1939, he returned and took four treatments, which resulted in complete relief.

This patient was classified as obtaining marked relief.

tients includes those with "acute sore throat" characterized by redness, difficulty in swallowing, and sometimes by excessive dryness. It is frequently associated with either acute coryza or acute laryngitis and is present in a moderate degree in many patients whose ailments are classified under those headings. Also there were a few patients who had chronic dryness and irritation in the throat and whose symptoms closely simulate chronic rhinitis.

For these patients, if the condition was acute, the cabinet was used, followed by chlorenan by mask. If the condition was chronic, then table inhalation with mouthpiece was given instead of the cabinet.

Nearly all patients experienced moderate relief and took an average of 6.7 treatments. In the acute group from four to six treatments were sufficient and in the chronic group from ten to lifteen treatments were required to produce good results.

Case 18.—A 45-year-old woman had had recurrent attacks of acute sore throat, sometimes with coryza or laryngitis and disturbance of hearing.

From November 4, 1938, to November 17, 1939, she had four distinct attacks, in November, February, May, and November, and took from three to twelve treatments each time. In all attacks, moderation in the severity of symptoms was noted, and in only one attack were more than five treatments required.

This patient had recurrent acute attacks for which treatment gave relief. She was classified as obtaining moderate relief.

#### Evaluation of Results

Acute nasal or respiratory conditions which are represented by acute coryza, laryngitis, pharyngitis, and hay fever are all characterized by relatively short duration and any treatment to be considered of value must relieve the severity or shorten the duration of the symptoms and prevent complications. Inhalations with the various combinations of mineral waters and medications have been evaluated on the basis of these criteria. The severity of symptoms is modified for many of these patients so that they have less discomfort during their acute attacks. The duration of these acute conditions is variable, usually lasting from one to seven days. Information is not available to permit any statement that the patient's attack is materially shortened. Also, statistically it has not been possible to compare the treated patients with a similar control group to determine the relative frequency of the occurrence of complications.

In the chronic conditions, as illustrated by sinusitis, bronchitis, chronic rhinitis, asthma, and allergic rhinitis in which symptoms are frequent and last over months or years, the value

of inhalations is judged by the symptomatic relief obtained during the treatment and the length of freedom from difficulty following the treatment. Improvement in symptoms occurred in approximately 70 per cent of the patients with these conditions even though the average number of treatments, as indicated in Table 2, was small. The relatively better results obtained from a longer period of treatment, as shown in Chart 1, suggest the possibility that many patients who showed no change might have benefited if they had taken a longer course of treatment.

Among the patients treated were 50, or 6.9 per cent, who had taken a course of treatment during a previous season. Approximately one-half, or 24, of these patients took the treatments for sinusitis, which is so frequently characterized by recurrent attacks of acute or subacute nature.

#### The Comfort of Inhalation

Patients who have required either surgical treatment or repeated hypodermic injections all remarked on the comfort and freedom from pain associated with inhalations. This factor is particularly important in the treatment of children, for patients as young as 6 years of age learn to take the treatment without fear as soon as they realize that they are not going to be hurt. This was very evident in the children treated for bronchial asthma. It is gratifying to the adult patient also to obtain relief from the pain and congestion of a sinus condition without the irritation of more pain in the course of treatment.

#### Treatment Reactions

In the course of treating 1,055 patients, only three reactions have occurred which require consideration. One case was that of a woman patient, 33 years of age, who came for treatment of pain associated with a sinus condition. She was given chlorenan for five minutes and said that she felt dizzy, faint, and numb. After resting a few minutes, she continued the treatment with table inhalation. Then a few whiffs of chlorenan produced a similar feeling so other medications were substituted, and she showed no further reaction. Case 9, as reported above, had an acute asthmatic attack following a cabinet treatment which was relieved by a direct inhalation of epinephrine chloride. She continued her course of treatment without any recurrence of these symptoms. It is necessary to be prepared to treat an acute paroxysm in any asthmatic patient, for one may occur occasionally in the treatment room either before or during treatment. The development of a headache, palpitation, and tachycardia following the use of medications containing epinephrine occurred in one patient.

end of the course of treatment her voice sounded normal, and she had no cough.

This patient's case is the chronic type and was classified as obtaining marked relief.

Case 13.—A 30-year-old man had "cold in throat" for four days with coughing attacks at night and with nearly complete loss of voice.

From December 15, 1939, to December 28, 1939, he had six treatments using the cabinet followed by five minutes of jodirenan by mask. After the third treatment the voice was improved and coughing attacks at night were less severe. Then for a week he had no treatments and his voice became more husky. He took three more treatments and at the end of the course, his voice was nearly normal and cough much less troublesome.

He represents the acute type. His relief was listed as moderate.

7. Allergic Rhinitis.—This group of 25 patients is distinguished from the larger group with chronic rhinitis by the recurrence of attacks characterized by watery secretions from the nose, congestion in the nose, and considerable sneezing occurring without any seasonal regularity.

It was necessary in this group to vary the treatment, and because of the small number, no program can be suggested for regular use.

The response to treatment was not consistent and likely depended on the freedom from the causative irritant. Five patients had only temporary relief although they took an average of 7.2 treatments; 8 had moderate relief, taking an average of 9 treatments; and 5 had marked relief with an average of only 9.6 treatments. When relief was obtained, the watery secretion diminished or disappeared, the breathing through the nose was free, and sneezing was absent.

Case 14.—A young woman 20 years old had periodic difficulty of the type previously described for two years.

From June 6, 1938, to June 27, 1938, she took 13 treatments, using the cabinet followed by chlorenan by mask. After five treatments, only momentary relief was noted so two drops of epinephrine 1:1,000 were added to the chlorenan. After three treatments of this type there was less nasal discharge, and breathing was less difficult. At the end of the course, symptoms were only minimal.

On July 9, 1938, the patient reported that she had had no recurrence since the treatment. On May 20, 1939, she stated that she had been free of any trouble during the winter. In August, 1939, another report stated that she had had no return of the above symptoms to date.

The occurrence of the attack which was treated in June, 1938, could be associated with pollen except for the history of its occurrence at various seasons for the preceding two years. She was classified as receiving marked relief.

Case 15.—A 42-year-old woman gave a history of hay fever during ragweed season. During the rest of the year she had sneezing attacks nearly every

forenoon and frequently once or twice during the night,

From January 25, 1939, to January 31, 1939, she took five treatments, using table inhalation with nasal outlet, chlorenan, and glycirenan by nose. Adrephine inhalant was also used twice. During the treatment she was free from the sneezing attacks at night, and they occurred less frequently during the day. One month later the patient reported that the relief obtained had continued to date.

While this patient took a relatively short course of treatment, she experienced some relief and was classified as showing moderate improvement.

8. Hay Fever.—A small group of 16 patients with classical histories of seasonal attacks characterized by sneezing, burning of the eyes and nose, lacrimation, and watery secretion from the nose were followed mainly during the acute phase of the condition.

As in the patients with allergic rhinitis, various combinations were used. The Hathorn or Geyser water seemed to increase the congestion, so they were regularly treated with either glycirenan or jodirenan by nasal tips and adrephine inhalant.

The response to treatment was generally immediate relief, followed by some diminution in the sneezing and nasal excretion during the rest of the day. Eight patients experienced moderate relief and took an average of 5.9 treatments. Real benefit was noted in a few patients who were able to follow the treatments during the entire period when symptoms occurred.

Case 16.—A man, aged 25, who had had hay fever in August and September for a number of years, gave a strongly positive test for ragweed.

From August 15, 1938, to September 23, 1938, he took eighteen treatments of glycirenan and chlorenan. He experienced relief of severity of symptoms, sneezing attacks occurred at less frequent intervals, and rest was disturbed less frequently than in previous years.

From August 8, 1939, to September 7, 1939, he took twelve treatments using adrephine inhalant and glycirenan. The excessive lacrimation and sneezing which were present at the start were partially relieved. He continued during the remainder of the period in moderate comfort.

This case illustrates the possibility of modifying the severe symptoms in a patient who is not able to escape the ragweed by travel. He was classified as obtaining moderate relief.

Case 17.—A man of 45, took five treatments from August 28, 1939, to September 5, 1939, during an acute attack of hay fever. He reported that the sneezing attacks were less frequent while he was under treatment.

The number of treatments taken by this patient was not sufficient to obtain a prolonged effect. He was classified as temporarily relieved.

9. Pharyngitis .- This small group of 14 pa-

## ANTEPARTUM NECROSIS OF THE ANTERIOR LOBE OF THE PITUITARY GLAND

J. Sportiswood Taylor, M.A., M.D., Kingston, New York, and Edward F. Shea, M.D., Stone Ridge, New York.

THERE are few fields open to the medical Linvestigator more fascinating than the study of the role of the anterior lobe of the pituitary gland in the maintenance of normal body functions, and the changes in these functions when the lobe is involved in disease processes. Those most familiar diseases resulting from changes in the hypophysis are due either to atrophy of the anterior lobe or to hyperplasia and tumor growth. The clinical syndromes which develop from such changes are usually gradual in onset and the patients seldom present a dramatic picture like that seen, for example, in acute hemorrhagic necrosis of the adrenals. Nevertheless, alterations which produce the most alarming signs and symptoms do occur in the pituitary gland, and they give rise to a clinical picture which is truly a dramatic one. Extensive traumatic injury to this gland constitutes one such group of alterations, but another group of acute lesions found in association with pregnancy, labor, and the puerperium is more interesting because the cause of these latter lesions is not understood, and the treatment of such patients is so uncertain.

Over a period of one year we had the opportunity of studying three very baffling obstetric cases. The mothers died, and in each instance at the time of death the cause of the difficulties was not suspected. The deaths were ascribed to obstetric shock on the basis of internal hemorrhage, in spite of the absence of objective evidence of such hemorrhage. The clinical course of each of our patients was almost precisely like that of the other two in what appear to be the essential details; and, because of this similarity, we have little doubt that the first one, upon whom no postmorten examination was performed, had a subtotal acute necrosis of the anterior lobe of the pituitary gland such as was demonstrated at necropsy upon the other two.

H. L. Sheehan<sup>1-4</sup> and his coworkers in Glasgow have studied this acute necrosis of the anterior lobe of the hypophysis quite intensively and have observed a rather large number of instances in the past ten years. These investigators are thoroughly convinced that such necrosis is the

result of what they call "hemorrhagic collapse," which occurs shortly after delivery. Most of us have been ready to accept this interpretation of the cause of this necrosis, and it seems almost heretical to question their conclusion. However, observations upon the cases we have observed and a study of the reports on like cases have led us to seriously question not only the episode of "hemorrhagic collapse" as the causative factor in this necrosis, but also to doubt the time of onset as postulated by the Glasgow group.

We believe that Sheehan's "hemorrhagic collapse" following delivery is the result of this necrosis in the pituitary gland rather than its cause, and, furthermore, it would seem that instead of this being postpartum necrosis it is in fact antepartum necrosis.

#### Summary of Clinical Observations

Case 1.—E. L., a white primipara, 27 years old, began her last menstrual period on January 28, 1940. She developed no untoward symptoms during her pregnancy until the onset of labor at 1:30 A.M., November 27, 1940, three weeks after the estimated date of confinement. Upon admission to the Kingston Hospital she was in good condition. Labor pains were mild and irregular, the membranes were intact, her blood pressure was 120/80, respirations were normal, and the pulse was 85. The fetal heartbeat was best heard in the left lower quadrant; its rate was 140, and the rhythm was regular. A trace of albumin and a few red blood cells were present in an uncatheterized specimen of urine, and the blood Wassermann was negative.

For ninety-three hours labor pains were never satisfactory in frequency, duration, or intensity, and at the end of this time the cervix was hardly more than effaced. Sixty hours after the onset of labor the patient lost the ability to void spontaneously and shortly thereafter began to show signs of nervous exhaustion, exhibited largely by a growing antipathy toward her mother and an unwillingness to cooperate with the nursing staff. The blood pressure was at this time 110/80 and the pulse was 95, but there was no apparent change in the fetal heart. At seventy-five hours backache developed and meconium was observed in the mucous show, but the exact time of rupture of the membrane was not determined. Discouragement and apprehension were marked at eighty hours, and a little later the patient felt faint when out of bed; she would no longer take food, and water had to be forced. After eighty-nine hours of labor the fetal heartbeat became weak and irregular, and there were large amounts of meconium in the

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The administration of the Geyser water at 95 to 98 F. may cause increased congestion in the nasal passages if they are already partly blocked. It can be prevented by giving the treatment at 85 to 88 F.

In the number of patients treated these few untoward reactions to treatment bear evidence of the safety of inhalation therapy.

#### The Rationale of the Treatment

The patients treated in the inhalation department may be divided into two groups, first. those with acute or chronic infection in the respiratory tract and, second, those with allergic conditions. The symptoms are dependent largely on the reaction of the patient as host to the infectious or allergic agent as invader. Inhalation therapy is considered effective by its influence on the mucous membranes of the respiratory tract which are subjected to physical-chemical influence of the ingredients of the mineral waters and medications. In their finely divided state they are distributed to all surfaces which are reached by the inspired air. In addition, certain medications such as epinephrine are absorbed and produce systemic effects.

More study is required to determine the physical-chemical influences on the mucous membranes, but the saline elements in the waters are solvents of mucus and soothe the irritated membrane, and the carbon dioxide acts to improve the circulation in them. The observations of Holinger and his coworkers support this conclusion. It is, therefore, evident that the benefits obtained from the inhalation of these agents is produced by their effect locally on the lining membranes of the respiratory tract and by systemic effects following absorption.

#### Relation of Inhalation Therapy to the General "Cure" Regimen

The large percentage of patients treated in the inhalatorium were following a "cure" regimen in which they took the mineral waters internally, utilized the various treatments in the bathing establishment, took regular amounts of exercise, and had definite periods for rest. The importance of this well-rounded program in relation to the inhalation therapy is recognized. The improvement of general health has a beneficial influence on local respiratory disorders. Also the

treatment of an irritating rhinitis, sinusitis, or bronchitis is necessary in order to obtain the maximum results from the "cure" program.

The fact that the majority of patients treated are at the Spa for from only two to four weeks makes it difficult to determine the prolonged results of this form of therapy.

#### Summary and Conclusions

1. A study of the results obtained in the treatment of 738 patients with inhalation is presented. The conditions for which the treatments were given included sinusitis, coryza, bronchitis, chronic rhinitis, bronchial asthma, laryngitis, allergic rhinitis, hav fever, and pharyngitis. The treatments consisted of the inhalation of finely nebulized saline-alkaline, naturally carbonated mineral waters, and medicated oils.

Marked relief of the condition treated was noted in 38 patients, or 5.2 per cent of the total; moderate relief in 468 patients, or 63.4 per cent; temporary relief in 46, 6.4 per cent; and no change in 185, or 25 per cent.

3. The relief obtained bore a definite relation to the number of treatments taken. In acute conditions, from four to six treatments were necessary to obtain consistent improvement while in chronic conditions, twelve to fifteen treatments were usually required.

4. Inhalations are taken without discomfort, which is an important factor in therapy.

The safety of the therapy can be stressed. Reactions of significance occurred in only three patients. One may possibly have had a sensitivity to chlorenan, one developed an acute asthmatic paroxysm, and one noted a general reaction to epinephrine.

6. Attention to the general condition of the patients suffering from respiratory disorders is an important factor. Inhalations have a definite place in the general "cure" regimen of a spa.

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#### VEGETABLE OPTOMETRY

The soldier finds a sense of humor helpful, even

in his darkest hours. "I'm the camp optician now," he wrote, much to the surprise of friends, who didn't know he had any knowledge of the science. Then he went on to explain: "I overstayed my furlough, and for the next seven days, I'll be taking care of the eyes of potatoes."—J.A.M.A.

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Over a period of one year we had the opportunity of studying three very baffling obstetric cases. The mothers died, and in each instance at the time of death the cause of the difficulties was not suspected. The deaths were ascribed to obstetric shock on the basis of internal hemorrhage, in spite of the absence of objective evidence of such hemorrhage. clinical course of each of our patients was almost precisely like that of the other two in what appear to be the essential details; and, because of this similarity, we have little doubt that the first one, upon whom no postmorten examination was performed, had a subtotal acute necrosis of the anterior lobe of the pituitary gland such as was demonstrated at necropsy upon the other

H. L. Sheehan<sup>1-4</sup> and his coworkers in Glasgow have studied this acute necrosis of the anterior lobe of the hypophysis quite intensively and have observed a rather large number of instances in the past ten years. These investigators are thoroughly convinced that such necrosis is the result of what they call "hemorrhagic collapse," which occurs shortly after delivery. Most of us have been ready to accept this interpretation of the cause of this necrosis, and it seems almost heretical to question their conclusion. However, observations upon the cases we have observed and a study of the reports on like cases have led us to seriously question not only the episode of "hemorrhagic collapse" as the causative factor in this necrosis, but also to doubt the time of onset as postulated by the Glasgow group.

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#### Summary of Clinical Observations

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For ninety-three hours labor pains were never satisfactory in frequency, duration, or intensity, and at the end of this time the cervix was hardly more than effaced. Sixty hours after the onset of labor the patient lost the ability to void spontaneously and shortly thereafter began to show signs of nervous exhaustion, exhibited largely by a growing antipathy toward her mother and an unwillingness to cooperate with the nursing staff. The blood pressure was at this time 110/80 and the pulse was 95, but there was no apparent change in the fetal heart. At seventy-five hours backache developed and meconium was observed in the mucous show, but the exact time of rupture of the membrane was not determined. Discouragement and apprehension were marked at eighty hours, and a little later the patient felt faint when out of bed; she would no longer take food, and water had to be forced. After eighty-nine hours of labor the fetal heartbeat became weak and irregular, and there were large amounts of meconium in the

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vaginal discharge. The situation appeared to demand operative interference, so that after ninetythree hours of labor a difficult high forceps delivery was performed, resulting in the intrapartum death of a 10-pound baby. The placenta was expressed intact soon after delivery, but the uterus did not contract well, vomiting began, the patient's color changed to that of a dusky cyanosis, and hemorrhage from the vagina began and was rather profuse. Small cervical lacerations were repaired without any appreciable effect on the uterine hemorrhage. Shortly the pulse was found to be very rapid, weak, and irregular, and its rate could not be satisfactorily estimated. Profound shock was evident thirty minutes after the child was known to be dead. Moderate vaginal hemorrhage continued, and the uterus remained relaxed even after the administration of gynergen and in spite of continuous massage of the fundus. Two hours after delivery approximately 600 cc. of blood had been lost but large quantities of intravenous fluids and a whole blood transfusion of 500 cc. had been given. The bleeding was stopped but the collapse continued, coma deepened, and death resulted eleven hours postpartum. Necropsy was not performed upon either the mother or the child.

Case 2.-H. Van W., a 30-year-old primipara, started her last menstrual flow on March 15, 1940. Except for a rather marked change in her desire for certain types of food and a fear of dying in childbirth there were no observed difficulties during the period of gestation other than its duration of over three hundred days. Irregular and mild labor pains began January 12, 1941, and at no time did the uterine contractions develop the usual frequency and intensity. During the first forty-eight hours of a desultory labor many vaginal examinations were done, but there was no evidence of sensis until after this period had elapsed. Then signs of sepsis appeared and tended to becloud the subsequent clinical picture. A few hours later the fetal heart rate had increased to 160, and the patient felt chilly. After fifty-six hours of labor the temperature was 103.6 F., the pulse of the mother was 140, and her respirations were 32 per minute. At fifty-eight hours the baby died in utero. Within forty-five minutes the mother was found in profound shock. Her blood pressure was 90/60, the pulse rate was 116, and there was marked evanosis with evidence of impending coma. Large quantities of clear fluid were vomited on several occasions. There was no vaginal bleeding, but three whole blood transfusions of 500 cc. each were given during the next twelve hours without any appreciable benefit to the patient. Twenty-four hours after its death the 10-pound 9-ounce baby was delivered by forceps. During delivery the blood pressure continued to be approximately 80/50 but subsequently it fluctuated downward, the pulse gradually became imperceptible, and death ensued ninety-three hours after the onset of labor and thirty-six hours after the death of the baby in utero. No significant bleeding followed delivery, and many supportive measures in no way appeared to retard her downward course.

Case 3.-M. C. was a 34-year-old white primi-

para whose last menstrual period began February 17, 1941. One month later her appendix was removed but otherwise the pregnancy was uneventful. Labor began at 4:00 P.M., November 23, 1941, at term. She had entered the Benedictine Hospital twenty hours earlier because of back pains. With the onset of labor the blood pressure was 128/80, the temperature, pulse, and respirations were normal. and the fetal heart rate was 140. The progress of labor was exceedingly slow, with the pains and uterine contractions widely irregular and ineffective. After sixty-five hours the membranes were ruptured, but this event in no way seemed to stimulate uterinc contractions. At the end of seventy-two hours the patient had begun to vomit large quantities of clear fluid, was extremely restless, and often screamed without sufficient reason for doing so. Soon she was uncooperative and would not stay in bed. The fetal heart did not change its rate or rhythm. After ninety-three hours of labor a live baby of normal size was delivered by cesarean section, and the child remained well. During the operation the blood pressure ranged between 130/80 and 150/80, but thirty minutes after the umbilical cord was tied the blood pressure of the mother began to fall, and this fall progressed in spite of the fact that plasma and whole blood transfusions were being given at the time. Shortly vaginal bleeding began but was readily stopped by a uterine pack before any significant amount of blood was lost. After two hours the pulse was weak and irregular and the blood pressure had fallen to 70/46, this fall having occurred while the second 500 cc. whole blood transfusion was under way. After five hours of collapse the administration of adrenal cortical extract restored the blood pressure to 128/78 and the character of the pulse improved, but this improvement lasted only a few hours. The last twenty-four hours of life were spent in profound collapse which was accompanied by cyanosis and a very high fever, none of which responded to the administration of oxygen, parenteral fluids, and general supportive measures. Death occurred fifty-six hours after the birth of the baby, one hundred and forty-nine hours after the onset of labor.

These three women were white, 27, 30, and 34 years old, respectively. Two had passed their estimated periods of confinement by many days. Their courses of labor were long and sluggish, with never really satisfactory uterine contractions of significant duration. The two babies which were past term were much larger than the usual term child and they produced differing degrees of dystocia, but the attending obstetricians thought manual intervention to be imperative only after signs of impending danger to the mother had developed. Two were delivered by high midforceps, and the other by cesarean section. The first resulted in intra-partum death of the baby; the baby of the second mother died in utero many hours before the forceps delivery; but the third child was delivered by cesarean section alive, and has remained well. In no instance was there massive bleeding following delivery; in fact, none of the patients lost more blood within the first hour postpartum than was well within the upper limits of such loss in otherwise uneventful childbirth.

During the early stages of labor the attending physician in each case felt that he was dealing with just another of the many patients who are slow to develop normal labor pains with adequate uterine contractions. After what would appear to be sufficient periods of watchful waiting, signs began to appear which indicated that they were not just cases of slowly developing labor but of something far more serious. The patients showed signs of exhaustion without having gone through any of the usual ordeals of an exhausting labor. They became increasingly uncooperative, restless, and apprehensive, observations which were disturbing and doubtless led to more vaginal examinations than should have been done. It is significant that the blood pressures remained at the level they were on admission to the hospital until many minutes after delivery in two instances, and until a similar period after the death of the infant in utero in the other

For the first thirty minutes or so after delivery of the two patients whose children were alive at the time the operative procedures were undertaken their condition seemed fair, but shortly thereafter they were in profound collapse. The pulse was extremely rapid and of very poor quality; the blood pressure had dropped for the first time and was so low that satisfactory estimations often could not be made, and both patients were semicomatose. A similar episode occurred in the other patient shortly after her baby died in utero. These periods of collapse followed the cessation of the fetal circulation through the placenta in such a striking fashion that it would seem that this halt in the fetal circulation might well have been the precipitating factor in the collapse. During the collapse episodes of the two patients who had delivered their babies before the collapse, the uterus relaved, vaginal bleeding began and resulted in moderate loss of blood, but the loss did not equal the quantity of intravenous fluids that had already been given to one of these patients. From this point on heroic supportive measures, including whole blood and plasma transfusions, parenteral fluids, adrenal extract, and oxygen helped for very short periods only.

The other patient, whose baby died in utero, ran almost precisely this same course, with the exception that there was absolutely no bleeding associated with the first period of collapse which followed shortly after the death of her child.

The dead baby was delivered many hours later as a last resort, but this in no way appeared to alter the mother's downward course. The three patients were dead eleven, thirty-six, and fifty-six hours, respectively, following the cessation of the fetal circulation.

The foregoing observations have convinced us that necrosis of the anterior lobe of the pituitary, in many instances at least, occurs at or about the time of the onset of labor and, moreover, that the "hemorrhagic collapse" of Sheehan may be the result rather than the cause of this necrosis. To summarize the evidence:

First, the sluggish and very ineffectual uterine contractions evident early in labor and persisting until death.

Second, signs of impending shock in the mother before postpartum bleeding of any consequence had occurred, and therefore before what Sheehan would call the episode of "hemorrhagic collapse."

Third, failure of the postpartum uterus to contract adequately at any time and its subsequent relaxation during the periods of collapse, due perhaps to a deficiency of pituitary hormones. It appears that this failure of the uterus to contract would account for the uterine bleeding.

Fourth, the collapse of the mother approximately one-half hour after the fetal circulation was interrupted either by tying the umbilical cord or as the result of fetal death in utero. In fact, the most convincing observation was that precisely the same clinical course resulted from fetal death in utero and was unaccompanied by any hemorrhage whatsoever.

### Summary of Pathologic Studies

The significant findings upon postmortem examination of our two cases are so nearly alike that they are easily described together. Of course, the results of the forceps delivery in one patient and those of the cesarean section in the other patient were different, but in neither was there more than the usual evidence of trauma and slight hemorrhage into the tissues. Both uteri were large and obviously relaxed. No sources of vaginal bleeding could be found other than the placental sites, which were free of adhering remnants. Both bodies were somewhat edematous, perhaps from excessive parenteral fluids, and there were signs of sepsis in the body of the patient whose clinical course suggested such sepsis. Scattered abscesses in the liver and adrenals in this body contained various kinds of bacteria, suggesting an almost complete breakdown of tissue resistance.

In each case the pituitary gland was seen to bulge through the opening in the sella diaphragm, and this dural covering was lifted upward and had a convex surface rather than the usual flat or concave one. When the glands were fully exposed they were found to be double or thrice the normal size. One measured 2 by 1 by 1 cm. while the other was more nearly spherical and was 1.5 cm. in diameter. Their cut surfaces were yellowish-brown, and the parenchyma protruded and tended to roll over the edges of the tense capsules, in sharp contrast to the normal-appearing gland. The posterior lobes were compressed but otherwise unchanged.

Microscopically there was seen widespread necrosis of the glandular elements of the anterior lobe with most of the cell outlines no longer distinguishable. The intrinsic blood vessels were intact and very markedly dilated, but no thrombi could be recognized in any of them. In each of the anterior lobes the only normal-looking cells were found as a very thin layer just under the capsule and in the region of the stalk where this portion protruded through the sella diaphragm. Different stages of disintegration of the cells were evident, and the older-looking areas appeared to have been initiated several days rather than a few hours before death.

#### Comment

The suggestion has been made by several students of pituitary necrosis seen in association with the gestational period that it may be the result of an exaggeration of the normal pregnancy changes in the parenchyma. The assumption is made that an ischemic necrosis results merely from the collapse of the anterior lobe's intrinsic blood vessels. This quite simple explanation might well be the correct answer, but we prefer to hold to the position that, as

yet, the cause of this necrosis is uncertain. Sheehan believes he can judge accurately the duration of such necrosis but we doubt his ability to do so and frankly admit that we cannot do more than roughly estimate it.

If this necrosis actually begins before the period of "hemorrhagic collapse" it might be asked why these individuals do not go into collapse before delivery. We believe there is just enough hormone gaining access to the mother's blood stream from that of the living child to prevent collapse and that when the circulation through the cord is interrupted the minimum maintenance supply of hormone to the mother is shut off and collapse occurs. This belief is based solely on the clinical observations recorded above.

It is hoped that the future will enable all of us to recognize these cases in time to attempt substitution hormone therapy, which holds promise of sustaining these patients until sufficient regeneration of the anterior lobe can take place for the maintenance of life or perhaps until the mother can make some such adjustment as do the Houssay dogs. If these deaths can be prevented by the administration of hormones, Sheehan has already pointed the way toward the restoration of health in nonfatal cases, for he has reported great improvement and, in fact, actual cures in women who subsequently became pregnant.

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#### CEREBRAL PALSY VICTIMS NEED NATIONAL HELP

Cerebral palsy, more devastating in its crippling effects than infantile paralysis, affects seven out of every 100,000 of population, yet children so crippled are the most neglected group of all handicapped children.

This statement is made by Paul A. Salisbury, pharmacist's mate, United States Navy, writing in the April issue of Hospitals, journal of the American Hospital Association. Salisbury in civilian life was director of physical therapy at Huntington, West Viceping, Orthogodic Hospital

Virginia, Orthopedic Hospital.

While the March of Dimes and the National Foundation for Infantile Paralysis, together with the work of Sister Kenny, have stirred the imagination and won the support of the public with reference to infantile paralysis, Salisbury writes, most people know nothing of cerebral palsy, its incidence, or the great need for care of its unfortunate victims.

The result of damage to the brain sustained either before, during, or after birth, cerebral palsy afflicts each year seven children born in every 100,000 population unit. Of this number, one will die during infancy or shortly after, Salisbury points out. About 25 per cent of the surviving children are too severely handicapped to be rehabilitated, but it is estimated that in this country there are 70,000 cerebral paralytic children who can be rehabilitated.

"This does not mean they can be completely cured," according to the author, "but that the majority of them, with proper medical and educational methods, can become partially or wholly self-sufficient instead of remaining helpless invalids."

While only four states have what may be called an adequate state-wide program for cerebral palsy, the only permanent solution is for each state to establish a centrally located treatment center and for each city or county to establish cerebral palsy societies, the author believes, all banded together by a national parent organization to carry on a program of orthopaedic treatment, specialized physical therapy and occupational therapy, special teaching methods, sight and hearing correction, speech correction and training, and vocational guidance.

## THE PREVENTIVE ASPECTS OF CORONARY DISEASE AND MYOCARDIAL INFARCTION

MILTON PLOTZ, M.D., F.A.C.P., Brooklyn

FOR hundreds of years the medical profession has approached the problem of the treatment of arteriosclerosis and the other degenerative diseases with comparative hopelessness. In this paper it is proposed to call attention to the fact that a certain number of cases of coronary disease—or, more properly, myocardial infarction—have preventive aspects; that once the attack has occurred, death may sometimes be averted; but, most important of all, to emphasize that one must approach an important field in preventive medicine with hopefulness rather than despair. In short, our attitude toward this disease must keep abreast of our newer concepts of its physiology and pathology.

About two years ago, when this study was started, some of our colleagues were skeptical of the idea of coronary disease having preventive possibilities. Yet we have been treating angina pectoris since the days of Heberden in 1768, and even before, from a prophylactic point of view. What else have we been doing when we advise the anginal patient to restrict his activities, to keep calm, to avoid tobacco, to keep his weight down, to take an occasional drink of whisky? It is true that we have been trying to reduce the severity of the individual attack but, consciously or not, we have felt that we could prolong his life; in other words, that we could postpone the day, which we felt would inevitably come, when his life would be cut short by coronary disease.

The first important consideration is that there are certain people who are especially likely to have coronary artery disease and that these are the ones who must be specially guarded by their physicians. In the present state of our knowledge we have no way of being sure which people already have damage in the coronary arteries. Even the electrocardiogram, which is our most valuable guide, measures not the changes in the coronary arteries but what takes place in the heart muscle. Therefore, all of us know of patients who have died of coronary thrombosis a day or two, or even the same day, after an electrocardiogram was reported as normal. Nevertheless, there is some degree of pred-

ictability and it is statistically certain that some people are more vulnerable than others.

First, there is the patient who has already had one attack of coronary thrombosis. The chances of his having another are very considerable indeed. Next, there is the man with angina pectoris. The likelihood of his dying from coronary disease is very great. Next, there are middle-aged and aged people with definite electrocardiographic evidence of heart damage without symptoms. These are often the ones who will die of some cause entirely unrelated to the heart. Yet, at autopsy, extensive damage to the coronary arteries or heart wall may be found. Nevertheless, given certain conditions, their coronary arteries will fail. Somewhat less vulnerable but still requiring special vigilance are patients with hypertension; with diabetes; with myxedema; with polycythemia; elevated blood cholesterol from any cause. All of these need watching and need to be guarded.

Guarded against what? One fact is of fundamental importance at this point, and that is that coronary thrombosis practically never occurs except in an artery which has already been damaged; it does not occur suddenly in a normal artery. Can anything be done, then, about actually preventing the formation of the atheroma in the arterial wall? In the light of our present knowledge, almost nothing, and yet directions for future research are becoming quite clear. The atheroma is almost pure cholesterol and its formation is concerned in some way with the metabolism of lipoids. In all likelihood, the wall itself is unable to get rid of the cholesterol as effectively as formerly and it accumulates as atheroma. Less likely, but still possible, is that cholesterol may be present in unusual amounts or in unusual states in the blood stream and that diet may be responsible in some way. Animal experiments, in spite of the fact that atherosclerosis can be produced experimentally in some animals, are still not very helpful. Nevertheless, the almost total absence of this disease in other races, such as the Chinese, suggests the possibility of dietary factors which need investigation. What is certain, however, is that excessive accumulations of cholesterol in the blood are harmful and predispose to coronary disease. The incidence of atherosclerosis is very high in myxedema, diabetes, and nephritis. Myxedema and diabetes, where the blood cholesterol is high, require

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vigorous treatment even though the patient may present no symptoms and have no complaints. Otherwise the incidence of atherosclerosis must remain as shockingly high in these diseases as it now is.

The next pathologic fact of importance is that coronary thrombosis is not usually a sudden We have already seen that it must be preceded by an atheroma, but some further change must take place in the atheromatous plaque or a thrombus will not form. The atheroma may rupture and the debris which comes out may be washed downstream and plug the artery at a narrower point. Or a thrombus may form at the rough area of rupture. Another possibility is that there may be, as the result of a sudden rise in blood pressure or rupture of capillary walls, hemorrhage into the plaque so that the caliber of the artery is sharply narrowed and the blood flow through it sharply reduced. If the flow of blood is very much diminished, the heart muscle may die even without thrombosis in the artery. Then again, a thrombus may form at the plaque and close off the blood supply completely. It is in this stage, when a change has occurred in the wall of the vessel but the circulation has not been completely cut off, that the patient may be helped and permanent damage possibly averted. This may not be the solution, . but it would be wise to continue the search for some safe method of maintaining the blood pressure in such cases.

This stage can sometimes, I think, be recognized clinically. The dramatic picture of terrifying pain, shock, changes in the cardiogram, etc., are only the final act in the drama of coronary thrombosis. Preceding this, in many cases, there is a prodromal stage of precordial pain, resembling coronary pain but yet so atypical that it is often mistaken for other conditions. It is like a prolonged, atypical attack of angina pectoris, relieved little, if at all, by nitroglycerin, and is really a reflection of reduced coronary circulation and anoxia of the heart. In a patient who falls into one of the vulnerable categories mentioned before, such an attack should lead one to suspect an impending coronary thrombosis. A man who suddenly develops angina pectoris for the first time should be put in the same category.

A typical example of what is meant is the patient with known angina pectoris of months' or years' standing. He has established for himself a pattern of pain of typical onset, characteristic distribution, and known methods of relief. One day the pain becomes more severe, conforms less to the known pattern, and is no longer relieved as effectively by nitroglycerin or resting. There is no leukocytosis, fever, or shock; the pain is not usually agonizing and there are no characteristic

changes in the electrocardiogram. This patient's coronary circulation has diminished considerably. Some of these cases will subside; others will go on within hours or days to infarction. At this point, the final crushing blow has not yet been delivered. The affected heart muscle has not yet died.

The important part of treatment is that this patient should be treated exactly as though he had a cardiac infarction. Every effort should be made to do three things:

1. To decrease the work of the heart. This is accomplished by putting the patient at complete bed rest. He need not stay in bed long. If infarction does not take place, five to fourteen days of recumbency is all that is necessary, but that amount should be a minimum. The presence or absence of leukocytosis, increased sedimentation rate, electrocardiographic changes, etc., will be our therapeutic criteria.

2. To increase the coronary circulation by using papaverine. Its effect may be slight but it is wise to employ it.

3. To increase the collateral circulation so that infarction may be avoided or the area made as small as possible. Bed rest and increasing the coronary flow help this. Also, there may be considerable spasm of these neighboring vessels because of the pain of the attack and morphine should be employed freely to stop the pain. It has been well established that in occlusion of the coronary artery necrosis of heart muscle is less likely to occur if pain is absent. That complete occlusion of a vessel may not result in an infarct, or even be clinically recognized, is a matter of common experience to every pathologist and cardiologist. Patients should be warned about the use of nitroglycerin in this stage. If nitroglycerin does not relieve pain promptly, it should not be used again. The repeated use of large doses of nitroglycerin in an effort to relieve the pain lowers the blood pressure and increases the possibility of infarction.

The third aspect of this problem, and the one of most immediate clinical application, is the fact that the heart muscle may die without coronary occlusion. If the head pressure in the coronary arteries is reduced sufficiently, even with normal coronary arteries, the flow may not be enough to keep the muscle alive. This relative insufficiency is even more likely to occur in a patient whose coronary circulation is already bordering on insufficiency; in other words, the vulnerable classes I have described. Since the pressure in the coronary arteries is dependent on the aortic pressure, any sharp and prolonged reduction of blood pressure may be fatal to such a patient. Therefore, he must be protected against such events as shocking operations, anesthesias, such as spinal, which lower the blood pressure, and severe hemorrhages in which ordinarily one would not be too much concerned about the drop in pressure.

Here are practical illustrations. A patient with angina pectoris was operated on for acute appendicitis and spinal anesthesia was employed. The blood pressure dropped from 150/90 to 90/40 in spite of anything the anesthetist could do for more than half an hour and the patient died several hours later. There was a large area of infarction but the coronary vessels were patent, although narrowed. On another service, five patients died in this way in one year after relatively mild operations in which general anesthesia was employed but in which the blood pressure was reduced during the time of operation.

During the past year we have seen a man of 46 in whom a previous cardiogram had revealed myocardial damage. This man had a severe hematemesis from a bleeding duodenal ulcer. In accord with usual practice in these cases, the blood pressure was allowed to drop from 146/100 to 92/60 for a period of forty-eight hours without transfusion. At the end of that time the patient had a myocardial infarction. The lesson to be drawn is that patients in vulnerable groups must not be permitted to have their blood pressures drop sharply and to remain at low levels too long. Patients past 40 with gastric hemorrhage should have transfusions earlier and should, perhaps, be treated surgically sooner than the young in cases of continued hemorrhage and hypotension. any case, anemia, of itself, throws an added burden on a myocardium to which the oxygen supply has already been lowered.

There is an important corollary to this argument. Let us take the case of a patient who has an established coronary thrombosis and is in shock. Usually little effort has been made to treat the hypotension of shock because of the danger of increasing the work of the heart. In general, I am in agreement with this attitude. Nevertheless, the danger of rupture of the heart is almost negligible on the first day or two when severe shock is present On the contrary, permitting the blood pressure to remain at dangerously low levels further reduces the coronary blood flow and reduces the possibility of effective collateral circulation. The mortality rate in cases with severe shock is shockingly high not only because major vessels are likely to be involved but because of the added handicap of the low blood pressure. For the past two years I have employed slow plasma transfusions in those patients in whom the systolic blood pressure has fallen below 90. While it is still too early to report definite figures, we feel that several lives have been saved by preventing the coronary head pressure from falling too low. It is difficult to evaluate results, since only the larger infarctions have pronounced drops in blood pressure and, in any case, it is difficult to have comparable control cases.

I have indicated several ways in which patients with failure of the coronary circulation may avoid death or serious consequences. There are numerous other methods, as yet too hypothetic or controversial to be included in this short paper. For example, there is the possible use of anticoagulants in the stage of impending thrombosis. We have used this method without definite results so far. There is the question of avoiding fatal complications such as changes in rhythm or embolization, either from the heart or from thrombosis in leg veins. There is the work, only just begun, on the use of chemical agents which act as catalysts to increase the efficiency of the use of oxygen by the heart muscle. There is the necessity for avoiding the use, in susceptible patients. of any drug, such as pituitary extract, which constricts the coronary arteries.

All of these, and others, must be omitted at this time.

To summarize: I have tried to show that certain categories of patients are pecularly susceptible to coronary disease; that coronary occlusion is a gradual process, not a sudden one, and that its prodromal stages can sometimes be recognized; that the heart muscle may die without complete coronary occlusion; that measures may be employed to reduce the likelihood of complete death of the involved muscle. More than this, however, I have tried to present an attitude, a point of view; to show the way which must be followed in the medical thinking of the future if the problem of coronary disease is to be solved.

#### Conclusions

- 1. Certain groups of the population are especially susceptible to the danger of coronary disease. These groups require special protection by the physician.
- 2. Myocardial infarction and coronary thrombosis are the end results of a chain of pathologic events. Proposed methods of interrupting the chain are discussed.
- 3. The premonitory symptoms of impending death of the heart are often marked enough to be clinically recognizable.
- 4. A more vigilant and optimistic approach to the study of coronary disease is needed.

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## CESAREAN SECTION

## Advantages and Disadvantages of the Present-Day Types

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ESAREAN section has undergone so many variations during the past forty years that we now have at our disposal several distinct types suitable for handling obstetric problems necessitating a suprasymphysial delivery. These we may classify as the classical, the low-flap, the Porro, the peritoneal exclusion, and the extraperitoneal cesarean. It is, of course, an axiomatic truth that the choice of procedure must rest with the experienced obstetrician, whose conclusions are in turn based on sound statistical findings.

I will begin my presentation by referring briefly to the classical cesarean section.

The indications for this type of operation remain practically unchanged; namely, in elective clean cases, placenta praevia, abruptio placentae, repeated cesarean section where sterilization may be deemed advisable, and in instances of dystocia produced by uterine, ovarian, or bladder neoplasms.

It is distinctly contraindicated in those cases of prolonged labor in which the element of infection, due to ruptured membranes or repeated vaginal examinations, renders it unsafe. And we must not brush aside the fact that the classical incisional scar carries a 4 per cent incidence of

rupture in subsequent pregnancy.

Because of the simplicity of the classical cesarean from a technical angle, efforts have been made to reduce its disadvantages to a minimum by improvements in technic as well as by the introduction of a number of changes. Among these changes are the lower longitudinal incision, accurate approximation of the uterine wound, reinforced by serosal coaptation, and exclusion of the peritoneal cavity by adequate padding. Of these changes, the use of the transverse incision in the lower segmental fundal junction is worthy of recording. This method, which has been adopted by E. M. Hawks, may prove to have all the advantages of the low-flap cervical operation. But despite these varied innovations the classical cesarean is not applicable in all cases, and even in the best of hands it still has a low but distressing mortality rate.

E. Porro, of Pavia, in 1877, introduced his well-known operation, since he was working in the preantiseptic age, in which he performed a supravaginal hysterectomy and bilateral salpingo-oophorectomy, leaving the cervical stump an-

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chored in the lower angle of the abdominal incision by a specially devised clamp. This operation is said to have been suggested in England by J. Blundell in 1830. It was performed in America by H. Storer in 1869 for fibroids complicating pregnancy. The modified Porro, as performed today, is essentially a supravaginal hysterectomy, preceded by removal of the fetus. The cervical stump is carefully peritonized. This operation has been advocated for multiple fibroids, rupture of the uterus, uncontrollable hemorrhage, and neglected cases where there is an acknowledged infection. The maternal mortality, which varies from 10 to 20 per cent, certainly does not speak well for this procedure.

Many substitutes for this drastic operation have engaged the attention of the profession. The operation known in the literature as the Sellheim IV (1909) was an attempt to salvage the infected uterus. Sellheim created a uteroabdominal fistula, having previously extraperitonized the uterus by suturing the peritoneum to the wound edges, and then attaching the uterus to the incision. The uterus was packed with iodoform gauze.

L. Portes<sup>2</sup> resurrected the distinctly undesirable two-stage operation in 1924: that of exteriorizing the uterus and adnexa—a method advocated by S. Gottschalk<sup>3</sup> in 1909 and again in 1911. According to W. Benthin, the primary mortality was 27 per cent, and in the first one hundred operations the mortality was 11 per cent.

R. Lecoq, instead of resorting to a Porro operation, removed the uterus with the fetus and placenta in situ (1919). He performed five such operations. However, the operation was not original with him, having been performed for the first time by E. Reymond in 1911 and then abandoned. Thus it will be seen that the serious mortality rates which I have enumerated and the loss of the vital reproductive organ militated against the adoption of this procedure.

Looking back several decades, we find that the problem of the infected or potentially infected parturient woman remained unsolved at the beginning of the twentieth century, and the solution of that problem has been due, in the main, to the efforts of those ingenious German obstetric surgeons, among whom we may mention Frank. Sellheim, Latzko, Küstner, and Döderlein. Here in America, particularly in New York City, the necessity for a type of cesarean section suit-

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able for infected cases was rendered obvious by the statistical report of Asa B. Davis<sup>7</sup> of the New York Lying-In Hospital (1911). In a series of 104 classical cesareans performed on potentially infected patients the mortality rate was over 16 per cent.

Krönigs and Opitz, believing that the better results from newer methods were due to the incision in the noncontractile lower segment, introduced the cervical cesarean section. After a lapse of at least ten years, this operation was evolved in America by Beck of and DeLee. DeLee introduced the descriptive term "laparotrachelotomy." Beck proposed the term "two-flap low incision," which Scott changed to "double low-flap cesarean." The latter terms have since been shortened to the simpler designation, "low-flap cesarean."

Beck, in 1920, reported 83 cases of "two-flap low incision cesarean section." In the discussions by Hirst, Norriss, Boyd, and McGlinn which followed his presentation it was pointed out that this type of operation did not solve the problem for the infected parturient. In rebuttal Beck stated that in his experience the great majority of deaths from peritonitis following a classical operation occurred as a result of extension of infection through the uterine wound despite apparent firm suture approximation. The uterus was infected and therefore the wound "broke down." But, we may ask, if the uterus was infected, was not the amniotic fluid therein also infected, and would retroperitonizing a low segment incision save the patient from a possible peritonitis? Beck gave the answer in his statistical report of the previous year: of the 19 cases managed by general practitioners and subsequently operated upon by the low-flap technic, 3 died, a mortality of 16 per cent.

Delee reported 330 laparotrachelotomies with only two deaths. But all of the patients in this large series had the benefit of careful prenatal supervision, with scrupulous observance of an aseptic conduct during labor, however prolonged. But, one might ask, how many of the 500 annual American fatalities could have been avoided by the low-flap cesarean after a labor mismanaged by an unskilled practitioner? This inadequacy of the low-flap principle was manifested in a report submitted in 1934 by O'Connor, who recorded a mortality rate of 5 per cent in a series of 133 laparotrachelotomies.

Irving, 12 too, in 1937, may have answered this question: "If the uterine contents are infected, the lower segment cesarean affords at operation no greater protection against spill and subsequent peritonitis than does the classical cesarean."

The transversely incised lower segment cesarean received its full measure of praise from the British obstetricians, Munro-Kerr<sup>13</sup> and C. McIntosh Marshall.<sup>14</sup> Without minimizing the dangers of the operation, Marshall considered it reasonably simple technically and "the only truly strategically and really surgical approach to the cavity of the pregnant uterus." He based his work on 246 lower segment operations, of which 70 were "suspect or infected cases." There were no deaths.

However, in spite of Marshall's faith in the lower segment operation, he did not trust it in 4 cases, resorting to a subtotal hysterectomy instead. He admitted to 27 infected wounds, not an alarming figure since these cases must be considered at least potentially infected and consequently a primary union was not to be expected.

Marshall, in his excellent text published in 1939, argued the pros and cons of the lower segment cesarean. Against it, he enumerated the more commonly expressed views—namely, that the lower segment is not well developed before the patient reaches term and technical difficulties will therefore be encountered; the anterior lower segment may in some instances be unusually vascular, owing to superficial vessels and tributaries emerging from the uterine substance, particularly when the placenta is attached anteriorly; the incision may involve the placental site and sutures will tend to tear the tissue, resulting in an imperfect union.

The advocates of this type of operation base their conclusions on the assumption that the spill is better controlled in the lower pelvis, that hemorrhage is diminished, that adhesions are fewer, that there is a stronger scar formation, that convalescence is smoother and the morbidity and mortality lessened.

In America the low cervical cesarean has gradually become dominant in the large maternity centers, but there are those who remain loyal to the classical operation despite repeated pleas (based on convincing statistics by DeLee) to outlaw it. In more recent years, there have been a number of surveys based on cesarean sections performed in certain American institutions, cities, and states. Such were the contributions of Lynch, of San Francisco (1937), Irving, of Boston (1938), Titus, of Pittsburgh (1939), Barrett, of New York (1939), Schumann, of Philadelphia (1939), Matthews and Acken, of Brooklyn (1939), and Cosgrove and Norton, of Jersey City. These surveys all point to the fact that though the classical cesarean is losing ground, it does not lack devotees, and that the low cervical operation is not without its small percentage of deaths due to peritonitis. Falls, of the University of Illinois, was able to find only the slightest balance in favor of the lower segment operation and thought that

it did not merit the extravagant praise of some of its sponsors.

The peritoneal exclusion principle of cesarean section encompasses all types of procedures which exteriorize the delivery space by uniting the parietal and visceral (uterine) peritoneum or by suturing the parietal peritoneum directly onto the uterus.

To briefly embellish the facts with a meager historical background, let me recount the fact that Frank, 15 in 1906, presented his first peritoneal exclusion operation before the International Congress of Medicine at Lisbon, and reported a total of 13 cases the following year, all of which were successful. All these cases had presented complications which rendered the classical incision hazardous; some of these were prolonged labor, early rupture of membranes, repeated vaginal examinations conducted at the home of the patient under adverse conditions, and even an unsuccessful trial of forceps. Frank's innovation was a decisive stop in cesarean section. It is true that A. Kehrer,16 in 1881, had made the first transverse lower segment incision, carefully suturing the cut edges of the musculature and the visceral peritoneum in separate layers, but his work was completely overshadowed by that of Sanger on the simple classical cesarean in 1882 and therefore his innovation was entirely neglected. But his lower segment incision with visceral peritoncal covering has long since been firmly established, replacing the classical approach entirely with many competent obstetri-Many modifications were based on Frank's transperitoneal or peritoneal exclusion principle—some minor and inconsequential, others presenting a distinct variation. Veit17 and his assistant Fromme were among the first to modify Frank's exclusion method. Veit and Fromme applied the Frank principle to a longitudinal incision of the abdominal wall. Both the parietal and uterine peritoneum were sutured to the margins of the abdominal wound. The upper portion of the fundal area was entered by a longitudinal incision. Following the delivery the peritoneal layers were reunited anatomically. This method, with a slightly modified suture of the visceral and parietal peritoneum with removable suture or clamps, was subsequently known as the Veit-Fromme technic (1907). Seldom have there been so many modifications of a surgical procedure as in the years immediately following the original efforts of Fritz Frank.

The peritoneal exclusion operation was introduced in America by B. C. Hirst, <sup>18</sup> in 1913. The union of the parietal peritoneum with the uterus prior to opening that organ received the attention of J. A. Harrar<sup>19</sup> in 1913, J. W. Markoe<sup>20</sup> in 1914, F. C. Holden<sup>21</sup> in 1915, J. O. Polak<sup>22</sup> in

1916, C.S. B. Cassasa<sup>23</sup> in 1916, and T. H. Cherry<sup>21</sup> in 1917. Irving performed 15 operations by this method in 1937. The Veit-Fromme exclusion operation, under its newer name, the Veit-Fromme-Hirst procedure, gained momentum in the twenties for the neglected cases.

Thus the search for a simple exclusion operation has continued unabated in America. But even with the many variations, there are two serious drawbacks associated with any type of exclusion principle: first, the excluded area can hardly be considered truly extraperitoneal from a bacteriologic point of view, because of the numerous needle punctures through the visceral and parietal peritoneum or through the parietal peritoneum and the fundal wall. The advocates of the exclusion principle should cease to think in terms of a "watertight suture line," but instead they must think of a "bacteria-tight compartment." A so-called walling-off suture line is no guarantee against bacterial invasion. Then, too, the traumatized peritoneum is less efficient as a combatant against infectious processes.

The second main drawback rests in the fact that the exclusion operation always presents the possibility that the extraperitonized area may prove inadequate for delivery. Consequently a break in the continuity of the peritoncal suture line may occur during actual delivery-an event which defeats the very purpose of the exclusion principle. Moreover, it is a decidedly unanatomic operation. Its application, then, would seem to be limited to those patients who have been given a trial at labor in whom the possibility of an infection is merely suspected. For the grossly infected patient or mismanaged parturient woman the peritoneal exclusion operation must, with all its modifications, remain a compromise.

Fritz Frank of Cologne began his efforts to circumvent intraperitoneal invasion in 1906. Frank does not definitely state that he actually performed an extraperitoneal operation, but he called attention to the old Physick principle of 1824 as a possible method of approach to the lower segment. It was Hugo Sellheim<sup>1</sup> (1908) who first performed a true extraperitoneal cesarean according to the Physick principle, separating the peritoneal fold from the dome of the bladder and exposing the entire lower segment by displacing the bladder downward. He succeeded in his first three cases. Sellheim was impressed with the migration of the bladder upwards during labor, and particularly during a prolonged labor when the cervix had become totally effaced. But he soon became aware of the surgical difficulties after his first three cases. This was due in part to his lack of an exact knowledge of the fascial

planes. Furthermore, he was not aware of the fact that the relationship between the bladder and the peritoneum was not identical in all cases. His operation consisted of freeing the bladder by blunt dissection on the side and by sharp dissection in the midline. This maneuver exposed the entire lower segment, which was incised longitudinally down to include the entire effaced cervix. In the same year (1908) Latzko,24 impressed with the difficulties encountered in separating the bladder dome from the peritoneal fold, and virtually admitting that the procedure was impossible, devised his own method of extraperitoneal cesarean. His operation differed in that his approach was a lateral paravesical dissection on the left side of the bladder with the bladder and peritoneal fold displaced toward the midline and held in place by a retractor. The procedure exposed the left half of the lower segment, which was incised longitudinally to permit delivery. The success which Latzko achieved by his paravesical exposure of the lower uterine segment led Küstner, Freund, Dührssen, and Solms to seek other extraperitoneal methods of approaching the lower segment.

In 1908, Zwiefel, 25 of Leipsig, brought this new operation to the attention of the English obstetricians at a meeting of the British Medical Association. In 1909 Ballantyne wrote a brief article on this subject. In 1911 Hey-Groves translated Sellheim's article. In the same year Russell described with sufficient detail the leading variations of the extraperitoneal operation. He gave his technic in reporting 6 Latzkotype operations. In 1921 Eardley Holland reported 12 extraperitoneal operations.

With these adequate English translations from the German available, Druskin29 performed the first Latzko operation in New York in 1914. In reporting his first case he made clear the advantages of the operation: lessened bleeding and nonexposure of the abdominal cavity. The intact peritoneum prevented any intra-abdominal leakage of blood or infected amniotic fluid. Since the intestines did not come in contact with the operative field, the incidence of shock was reduced to a minimum. In 1915, James W. Markoen at the New York Lying-In Hospital showed a keen interest in the Latzko cesarean. By September, 1915, Markoe had performed four extraperitoneal cesareans of the Latzko type in infected cases. He reported these cases, reviewed the literature, and carefully analyzed the extraperitoneal cesareans performed in Europe which were now mounting up by the hundreds. After Markoe's death interest in the extraperitoneal cesarean subsided in the New York Lying-In Hospital, one of the leading obstetric centers in America. In 1923 Jellinghaus again reviewed the German literature and revived the interest in the Latzko cesarean at the Lying-In and the New York Nursery and Childs Hospitals. Between 1930 and 1934 Steele and Burns reported 138 extraperitoneal operations performed by members of the staffs of these two institutions. But the Latzko procedure did not gain momentum in America, mainly because it remained a rather difficult operation, and because one of the leading authorities in America had committed himself against it. It must be said, however, that at the Woman's Hospital, since 1938, over 100 extraperitoneal cesareans of the Latzko and Sellheim types have been performed. Recently Cosgrove and Norton reported 209 extraperitoneal operations with a mortality of 1.9 per cent.

Even in Europe the extraperitoneal principle did not meet with unbounded favor. E. Runge<sup>31</sup> (1910) did not believe that the operation offered immunity to an intra-abdominal infection, whether the peritoneum was lacerated or left intact. He was firm in his belief that bacteria could not only penetrate the most accurate suturing, but even the peritoneum itself when it was separated from its underlying tissues. However, this theory remains highly questionable. The development of a peritonitis after an extraperitoneal cesarean leads to the question: Was the operation truly extraperitoneal?

In 1940, the Physick-Sellheim operation was revived in America. Working independently Ricci, 32 of New York, and Waters, 33 of Jersey City. evolved methods which have simplified the separation of the bladder dome from the peritoneal fold. Both investigators have stressed the necessity of a clear understanding of the relationship of the fascial planes to the lower segment. anterior and posterior bladder surfaces, and peritoncal fold. Ricci has been able to modify the Latzko operation without incising the peritoneum in order to expose a greater surface of the lower segment than would otherwise be possible. By exposing the paravesical fossae on both sides. elevating the bladder from its bed throughout, and fraying the fascial structure up to the urachus, it is possible to displace the bladder downward and laterally, rather than merely laterally, and permit a semilunar incision of the lower segment.

A careful review of the literature from 1908 to 1940 reveals that there have been over 3,688 true extraperitoneal operations reported, of which 125 were of the Sellheim type, prior to the Ricci and Waters contributions. The remaining operations were of the Latzko, Döderlein, 4 Küstner, 25 Dührssen-Solms, 25 and Frank types, while in 830 instances the type was not clearly stated.

But, laying aside all argumentation as to the relative value of the different types of extraperitoneal cesareans, the Physick-Sellheim type of operation might well be attempted more often in performing cesarean sections to better acquaint the operator with the anatomy of the fascial attachments.

The extraperitoneal operation is the last haven of safety for a patient with ruptured membranes who has been subjected to repeated vaginal examinations and even futile attempts at vaginal delivery with forceps. It should eliminate from the mind of the obstetrician all thoughts of exteriorization of the uterus, or the Porro operation. And since it prevents peritonitis, it should displace all other types of cesarean for infected or mismanaged cases. It should remove the thought of incising a persistently unyielding cervix by the Dührssen technic, since a wholesome respect for that organ is the sine qua non of sound obstetrics. It is far less traumatic and much safer to deliver by a quickly executed extraperitoneal

cesarean than to subject a patient to craniotomy. But in the final analysis it cannot be gainsaid that no extraperitoneal cesarean, however perfect anatomically and however neatly and rapidly executed, will salvage the parturient who is subject to a blood stream infection. That is a medical, not a surgical problem, and it is becoming increasingly evident that the use of chemotherapy orally or intra-abdominally may even rehabilitate the classical cesarean for all cases. But, for the present, the extraperitoneal approach eliminates the commonest type of fatality following cesarean-a generalized peritonitis.

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## DUTCH DOCTORS TO RESIST GERMAN DEPORTATION

The doctor shortage has become so serious in Germany that the Nazi Labor Office in Holland is planning to deport from five hundred to two thousand Dutch physicians to the Reich. Ostensibly their services will be reserved for Netherlands workers in Germany, but actually they will be used to treat German soldiers and civilians.

The Dutch underground newspaper Trouw has seen through this subterfuge, and in a recent issue exhorted the Netherlands doctors to resist deportation as effectively as they resisted German efforts to Nazify the medical profession in the past. "The danger of deportation to Germany is great," the paper pointed out. "We must count on new largescale efforts on the part of the Germans to deport from five hundred to two thousand doctors. ready all doctors have been ordered to register at

the Labor Office.
"The watchword must be 'No Dutch doctor goes voluntarily to Germany.' "

Trouw stated the following reasons why doctors should resist deportation: "It is most improbable that the Germans would allow them to treat Dutch workers-Netherlands medical students in Germany are often employed as doctors, but never in Dutch labor camps. If they go to Germany for the benefit of the German workers, they will be rendering an important service to the enemy. Once deportation of doctors begins, it will not be stopped—there would be a calamitous shortage of doctors in Holland."

Anton Mussert, head of the Dutch Nazi party, had indicated at the annual meeting of the Nazified "Medical Front" that the Germans were planning to conscript five hundred to one thousand Netherlands physicians, and asserted, "We will do our utmost to force these immoral, unpatriotic doctors, who want to leave their compatriots in Germany without medical care, to do their duty."—Release from the Netherlands Information Bureau

## Therapeutics

## CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the July 1 issue and will concern "Management of Di-orders of the Thyroid: II. Myxedema."

## Management of Disorders of the Thyroid: I. Hyperthyroidism

Dr. Harry Gold: The conference this morning is on the subject of Graves' disease. It is proposed that we take up both the medical and the surgical aspects. The two phases of treatment are closely related in any plan of therapy for patients with this disease. Dr. Shorr will open the discussion of the medical treatment of Graves' disease

Dr. Ephram Shorn: Since Dr. Glenn will present the details of preoperative treatment of Graves' disease, I shall confine my discussion to the general principles underlying the therapy of this condition. Since therapy can be only as good as our understanding of the mechanism of any disease, we may appropriately consider first what we know of this symptom complex and see how this knowledge provides a basis for therapeusis.

First, the constitutional aspects. For a long time, it has been generally recognized that certain constitutional types are prone to develop Graves' disease. By far the largest number of patients fall into the linear type, the so-called lymphatic constitution whose characteristics have been so ably described by Warthin. This is, of course, not to say that the disease is confined to this group, since every constitutional type contributes to its numbers. This group manifests a great deal of autonomic instability and contributes not only to the Graves' disease population, but to the peptic ulcer group, and to the group of patients presenting a great deal of autonomic instability without, however, frank Graves' disease. Since there is nothing we can do about altering constitution, this knowledge of a constitutional predisposition is chiefly of diagnostic

The second predisposing factor is to be found in those critical phenomena which influence the stability of the thyroid apparatus. These critical episodes are much more prominent in women; hence women make up the preponderating number of patients with Graves' disease. At puberty, at the menopause, and during pregnancy, the thyroid apparatus is much less stable than at other

periods. This instability is manifested by the higher incidence of goiter at these times. Infections, menstruation, and indeed any form of stress are also prone to render the thyroid mechanism less stable. At these times, the thyroid apparatus undergoes hypertrophy and hyperplasia unless additional iodine is given above that which is present in food; and, of course, in the goiter belts where the iodine content of the environment is low, these phenomena are exagger-Once the instability of the thyroid apparatus has developed, it is more likely to be further upset by any additional type of strain. Therefore we are likely to see the organism thrown into Graves' disease when a strain is coincidental with this physiologic stress. The higher frequency of physiologic stresses in women is now generally recognized as responsible for the higher incidence of Graves' disease, but it should be emphasized that it is not the menopause or pregnancy, for example, which is the cause of Graves' disease: rather it is that such conditions render the gland more vulnerable. Therapeutic implications are preventive in nature. Women at these periods of physiologic stress should be protected by the administration of adequate amounts of iodine.

We have thus considered two factors-constitutional makeup and the influence of periods of physiologic stress. We now have to inquire into those processes by which this soil is inseminated. Many of us believe that the most important influences are psychologic and emotional and that these influences may be divided into the chronic and the acute. While an acute emotional experience appears capable of inducing Graves' disease in a suitable soil if it is intense enough, it is much more usual to find it superimposed on long-standing chronic anxiety and insecurity. Careful psychiatric histories show, with few exceptions, this chronic type of behavior which culminates in some acute episode of such a nature as to reinforce the feeling of insecurity. The therapeutic implications are obvious but not easy of fulfillment, since these patients seek advice

after the disease is well developed. There appears to be no ready mechanism by which their emotional and psychologic setup can be influenced so as to minimize the impact of a psychic trauma. What one can hope to do is to influence the severity of the reaction and to diminish the possibility of recurrence. There may be some difference of opinion as to how intensive psychotherapy should be during the active stage of the disease while the patient is being prepared for operation. Is one likely to cause an exacerbation of symptoms and worsen the condition? My own feeling is that patients, during the active state of Graves' disease, are much more accessible psychologically than they are likely to be after operation, and for that reason one can acquire a great deal of psychologic material which one can then utilize after operation. Furthermore, it is often very beneficial to bring out into the light the specific problems which are bothering the patient, and which she has succeeded in repressing, to her disadvantage, Although one runs the risk of a temporary exacerbation, these flare-ups are usually followed by considerable relief of emotional tension with distinct benefit to the patient's progress. With respect to postoperative psychotherapy, there would appear to be no disagreement as to its value. Indeed, it is a necessity if many patients are to be protected from a recurrence of their illness.

Adjuvant measures are the use of sedatives and physiotherapy. However, sedatives may be abused. If, for example, 30 mg. of phenobarbital four times a day do not succeed in quieting a patient, raising the dose is usually ineffective and not infrequently leads to toxic reactions such as are commonly seen in psychotic patients who have been oversedated. We have occasionally encountered hyperthermias and even toxic delirium from oversedation. What is of help is adjuvant physiotherapy in the form of tepid tubs, morning and night, for one-half hour at temperatures of 98-100 F. In addition, attention should be paid to the environment under which the patient is likely to feel the most at ease. Isolation in a darkened room with complete inactivity is not infrequently a very unhappy state for some patients who much prefer a companion with whom they may chat, or even the social character of a four-bed ward, and who will be rested rather than disturbed by a radio. Individualization of each patient in respect to environment is of considerable importance.

We may now consider the metabolic disturbances which threaten the organic security of a patient with Graves' disease. Virtually every metabolic process is disturbed in every case of Graves' disease of any severity. The increase in total metabolism must be met by providing a

sufficient number of calories. As for patients with Graves' disease who are confined to bed, it is almost impossible to keep them on caloric equilibrium with less than double their basal number of calories, but, in addition to calories, there are specific recommendations which can be made on the basis of the metabolic defects characteristic of the disease. There is usually an abnormally high nitrogen metabolism, but one should not aim to meet the increased need for nitrogen by supplying an excessive protein intake, which would have the disadvantage of increasing specific dynamic energy and, hence, caloric waste. It is now well established that protein metabolism can be reduced to normal levels by supplying sufficient calories in the form of carbohydrate and fat, which are without this disadvantage. Disturbances in carbohydrate metabolism are evidenced by the delayed sugar curves comparable to those in diabetes, and the not infrequent glycosuria. The carbohydrate defects in Graves' disease do not, however, arise from any defect in oxidation; in fact, oxidation of carbohydrate usually proceeds at even higher than normal rates. The derangement is entirely a matter of storage difficulties. Possibly because of the increased sensitivity of the liver to epinephrine, there is a greater tendency to glycogenolysis than in the normal. Nevertheless, adequate storage will go on if sufficiently large amounts of earbohydrate are given.

There is an abnormally high loss of calcium and phosphorus from the body. Occasionally this may lead to extensive rarefaction of the bones and should be dealt with by a high calcium intake. A quart of milk a day will generally suffice to put such patients on positive calcium balance. Vitamin requirements are also much greater and vitamin supplements should be a regular part of any dietetic regimen.

There is one other metabolic abnormality characteristic of Graves' disease which is probably of considerable significance for the organism-namely, the disturbance in creatine metabolism. This is manifested by an abnormal creatinuria, a poor creatine tolerance, and a reduction in the rate of creatinine excretion, similar to that seen in progressive muscular dystrophy. If this disturbance is allowed to continue uncorrected, it will result in muscle destruction. It is felt that the destructive changes in the extra-ocular muscles in Graves' disease are a result of this disturbance in creatine metabolism. It is impossible to correct this metabolic defect by diet; however, iodine specifically abolishes it.

This brings us to the question of specific therapy. Up to the introduction of radioactive iodine and thiouracil, iodine has been our chief reliance. Doses required are relatively small; certainly not more than 15 mg. of iodine a day ever appear to be necessary. The conception that when such amounts of iodine failed to reduce the basal metabolic rate, larger doses would, does not accord with our experience. We feel that iodine should be administered once the diagnosis of Graves' disease is made because of the existence of these precarious metabolic disturbances which iodine specifically corrects.

This leads up to the consideration of the decision as to which regimen-medical or surgicalshould be employed in any given case. There is no real difference of opinion as to the choice in most cases of Graves' disease. At present the most effective means of controlling the disease in the majority of cases is by subtotal thyroidec-

Operation interposes a block in the cycle of events by reducing profoundly the extent of thyroid activity; and despite our recognition that it is a far from perfect method and does not go to the heart of the problem, it is a pragmatic procedure which is the most likely of any now known to check the disease in a high percentage of cuses.

There is, however, a small percentage of patients, probably 5 or 10 per cent, who respond extremely well to a conservative regimen, and I should like to suggest some criteria by which one may decide whether operation or a more conservative regimen should be employed. If the patient is in the older age group where the continuation of the disease endangers the cardiovascular system, conservative therapy is not indicated. the patient is in the period of puberty or menopause, some consideration should be given to the possibility of nonoperative stabilization. If the illness is very severe and of long duration, conservative therapy is not warranted. If the gland is large, conservative therapy is rarely successful. If the response to iodine, both as regards the immediate and prolonged course, is excellent, conservative management is favored. If there is a psychologic problem which can be well defined in a patient with enough insight to deal with it, and if the social and economic conditions look lavorable, a conservative regimen may be considered. By weighing all of these factors, it is not very hard to make a decision as to which regimen should be followed.

It may very well be that the recent advances in the treatment of Graves' disease, such as the use of thiouracil and radioactive iodine, will greatly increase the number of those who can be treated nonsurgically.

There may be an opportunity later in the conference to touch on these new approaches.

This has been a very brief consideration of a very complex problem.

Dr. Gold: Dr. Shorr's presentation is now open for discussion.

STUDENT: I should like to ask Dr. Shorr whether the more severe state of the disease is a contraindication to surgery?

Dr. Shorn: No. It is the other way.

STUDENT: I thought it was a contraindication.

Dr. Gold: Apparently, Dr. Shorr does not. I think we would all agree that the operative mortality is higher, the more severe the disease, and that in such cases it is imperative to secure remission by medical treatment before operation.

DR. WALTER MODELL: I wonder if Dr. Shorr would discuss further the matter of constitution as a causative factor, especially the endocrine constitution.

Dr. Gold: Is that question clear?

Dr. Shorn: The question is clear enough but the concept of constitution is not. All that one can say about it is that we see rather specific constitutional types among patients with Graves' Their resemblance to one another is analogous to the sort of thing we see in gastrointestinal diseases—namely, the ulcer type, the gallbladder type, and, if we were to go further, the pernicious anemia type. I was looking over a group of cases recently and noticed with what frequency Graves' disease and ulcer go together. The term "lymphatic type" also applies to them: there is marked growth of lymphatic tissue not only in the lymphatic tissues all over the body but there is invasion of the thyroid by masses of lymphatic tissue so extreme as to resemble a tonsil. I am sure that Dr. Foote can show you case after case of that kind. The familial factor is, of course, well recognized. We have families in which practically all of the women have had Graves' disease. In that group the incidence of recurrence is high. This is a very sketchy picture but it is all I know which can be said with any certainty.

STUDENT: Is the calcium imbalance an invariable accompaniment of Graves' disease?

DR. SHORR: Yes.

STUDENT: I should think that might be of some importance in relation to cardiac and gastrointestinal function, and to the possibility of formation of renal stones. Is it considered very important from these standpoints? Has it also to do with the parathyroid hyperplasia?

Dr. Shorr: The nature of calcium deficiency in Graves' disease is not clearly understood. As it is generally encountered, the chief disturbance results from decalcification, particularly in the spine. Not infrequently the patient complains bitterly of that particular manifestation. We do not usually explore that defect sufficiently.

STUDENT: The term "masked hyperthyroidism" is widely used. What does it mean?

Dr. Shorn: I think it refers to the many cases which do not correspond to the textbook picture of the disease. There is a tendency to regard the textbook picture as the rule; Graves' disease is masked or unmasked in so far as it contains few or all of the classical features. The so-called masked variety puts more of a strain on the ingenuity, clinical acuity, and all the specific diagnostic tests.

Dr. Gold: Do we not usually place a great deal of emphasis on the nervous symptoms in the diagnosis of Graves' disease? Doesn't the term "masked hyperthyroidism" refer usually to those cases in which the nervous symptoms are minimal; for example, cases with predominantly gastrointestinal symptoms, or those with few or no nervous symptoms but with recurring attacks of heart failure or rhythm disorders?

Dr. Shorn: The attitude that exophthalmos must be present invariably in Graves' disease has, of course, been invalidated. In any large clinic you see many cases of perfectly straightforward and severe Graves' disease without exophthalmos.

DR. McKeen Cattell: It seems pretty clear from what has been said that psychic factors play an important part in Graves' disease, as well as certain structural and functional changes. Is there any relation between these? Which comes first?

Dr. Shorn: I wish I knew. We do not know the way in which those transfers are made. Perhaps the organism should be regarded as a whole with disturbances occurring on more than one level. There may be one common cause for all of them. Animal experimentation suggests that the pituitary may be a common pathway by which emotion may make itself felt in functions. For example, below the level of consciousness an emotional disturbance will produce an amenorrhea, since the pituitary is the source of the gonadotropic stimulation. I cannot prove it and no one has established it with any degree of certainty.

DR. CATTELL: In Graves' disease the pathway would then be through the thyrotropic hormone of the pituitary?

DR. SHORR: So we assume from our observations on animals. So far, examinations of the pituitary in humans have not revealed any gross pathology. However, the work of Rawson and his associates has clearly shown that during active Graves' disease there is an excess of thyroid-stimulating hormone in the urine. The hormone is largely in an inactive form and must be activated by autoclaving. When this is done, there is usually found to be twice the normal amount of thyrotropic hormonal activity present. This interesting observation of Rawson has important implications. It would indicate that the thyro-

tropic hormone undergoes inactivation in the process of hyperplasia. This same principle probably holds for the gonadotropic hormone also.

Dr. Gold: Dr. Shorr, have you ever cured a case of Graves' disease by the psychologic approach alone, or is such an approach productive only as an adjuvant in pre- and postoperative treatment?

Dr. Shorn: One should ask whether cases are cured by any specific means of treatment, whether it be surgery or medicine. Patients become well under both regimens. The exact process I think we have to leave unsettled.

Dr. Gold: Suppose we put a modified question in the form of numbers. Would you say that one out of ten, or one out of twenty, of the garden variety of cases of Graves' diseases which have come to your attention will get by without having the thyroid removed?

Dr. Shorn: One out of ten.

Dr. Gold: I should have said that it is less than that.

Dr. Shorn: We always apply conservative treatment first in cases with recurrence before subjecting them to a second thyroidectomy. The problems there are similar to those existing before any operation in these cases.

Dr. Cattell: Since the psychiatric factors seem so important etiologically, would you suggest that all patients with Graves' disease receive some psychotherapy, at least postoperatively?

Dr. Shorn: I feel very strongly that it is one of our major therapeutic weapons and that a certain amount of psychotherapy, certainly psychiatric investigation, should be carried on before operation with a view to providing the physician with clues to psychotherapy after operation, at which time it should be universally employed.

Very often patients will quiet down so much after operation that they become quite inaccessible to psychiatric exploration, certainly much less so than when they are very hyperkinetic, talk a good deal, and are prone to give verbal expressions to their problems. Because of this, I always find out as much as I can about the patient during the active stage of Graves' disease in order to store up information which would facilitate psychotherapy afterward.

Dr. Gold: Dr. Glenn has been detained at an operation. He has supplied a manuscript on surgical aspects which Dr. Travell will read.

DR. FRANK GLENN: My remarks are confined to one phase of therapy, the pre- and postoperative management of the patient with hyperthyroidism.

Preoperative Management.—To control the psychic factors, the patient, upon admission to the hospital, is placed in a quiet single room from which noise and confusion are eliminated as much

as possible. Every member of the surgical and nursing staff attending him should contribute in some measure to his peace of mind and feeling of security. The psychic aspect of hyperthyroidism is of great importance and should seriously be considered in the treatment of the condition. Visits from friends are discouraged, and nervousness and restlessness are controlled by sedatives. The room is darkened for regular periods of rest. The diet is planned so as to produce a gain in weight and an increase in reserve strength; the patient's preferences in food are studied by the dietitian, who arranges the trays and checks the amount actually consumed. Careful attention is given to complaints of service or accommodation, so that the patient feels that his well-being is important to all members of the staff.

The surgeon who will operate and his assistants cultivate a friendly relationship with the patient and, by allowing him to voice his fears and wornes, acquire his confidence. As soon as he has gained some self-control, the preoperative and operative treatment, as necessary steps in restoring him to health, are presented to him, and his cooperation is sought.

Physical Preparation.—The physical preparation of the patient must be carried out with proper observance of the principles just enumerated. The routine examinations on admission to the hospital are planned with regard for the patient's state of mind and are not allowed to interfere with regular periods of rest. The chest and the cervical region are examined to ascertain the presence of substernal or retrotracheal extensions of the thyroid gland. The basal metabolic rate is determined soon after admission and once a week thereafter. The weight is recorded twice a week. Medication for the thyroid patient is confined to mild sedatives, iodine, cathartics, and digitalis when indicated. Sodium amytal is our usual sedative, the average dose being 0.1 Gm. three times a day. Phenobarbital or bromides may be substituted for amytal. A nice adjustment of the dosage is essential to avoid periods of confusion, which result from too large amounts of the sedative drug. Iodine is administered in the form of Lugol's solution in doses of 0.6 cc. three times a day. If symptoms of iodism appear, the dose is reduced.

Digitalis is not prescribed routinely but is reserved for patients with auricular fibrillation or decompensation. The toxic thyroid patient usually requires larger doses of digitalis for a therapeutic effect than is ordinarily necessary, but as the hyperthyroidism recedes during the preoperative therapy, the dosage usually can be reduced.

Optimum Time for Operation.—The progress of the patient toward a condition in which it will be safe to operate is recorded day by day. A number

of factors enable the experienced surgeon to judge this progress in the individual case. No one sign is reliable except in conjunction with others. The patient should show marked regression of the outward signs of hyperthyroidism, evident in the disappearance of the anxious facial expression and diminution of the tense restlessness. The pulse should have dropped to normal or be approaching normal and excessive perspiration should have ceased. A gain in weight more than sufficient to compensate for losses suffered during the disease should be recorded. This is often not steadily progressive. If it is, the most favorable time for operation is during a phase of increasing weight. The thyroid gland should be smaller and firmer than on admission. However, if the patient has been taking iodine prior to admission, this will not be evident. A fall in the basal metabolism is looked upon as evidence that the progress generally has been satisfactory, but it alone cannot be relied upon to indicate the optimal time for operation.

There is considerable difference of opinion concerning the wisdom of extending the preoperative therapy over a long period of time. It has been found that many patients improve very little and may lose some of the benefit of the preparation for operation after from sixteen to eighteen days. The usual preoperative period at the New York Hospital is twelve to sixteen days. It is in determining the time for operation that there is great need of experience and judgment. Hyperthyroidism in each individual case is a unique disease in that no two patients react in exactly the same manner to outside influences, therapy, and operation. This necessitates a careful evaluation of all available signs in each patient.

Postoperative Management.—The immediate postoperative therapy begins with the application of the dressing at the conclusion of the operation. In order to be comfortable and yet give the patient support for the operative wound, it must be soft and secure and not easily displaced or soiled.

The patient is transferred from the operating table to his bed and taken to the ward in it, so that he need be lifted only once. If he is awake, a word of reassurance about the success of the operation will allay his fears and, when he recognizes the personnel and surroundings with which he became familiar before operation, he realizes that he has no cause to worry. A hypodermic of morphine, 0.01 Gm., is given immediately and Lugol's solution, 1.6 cc. in 100 cc. of water, is given by rectum. Special nurses are in attendance for the first twenty-four hours, during which period the pulse is recorded frequently. Fluids by mouth are withheld until there is reason to believe that they will be retained and swallowed without too much pain. After that, the patient is urged to drink all he can, chiefly fruit juices for their glucose content. If, in the first twelve hours, the fluid intake has not been sufficient, fluids are given intravenously or subcutaneously. Intravenous glucose is of considerable value in the immediate postoperative therapy of toxic patients.

Convalescent Period.—The wound is inspected at the end of twenty-four hours and every other skin suture is cut. The following day the cut sutures are removed and the remaining sutures cut. In the routine case other sedatives are substituted for morphine after two or three days and these are gradually reduced in amount over a period of five or six days. As soon as all nausea has ceased and liquids are well taken, Lugol's solution is given orally, in the preoperative dosage. After five or six days, the dose is cut in half and then gradually reduced so that, at the end of the hospital stay, the patient is accustomed to being without iodine.

The patient is allowed to sit up in bed on the seventh or eighth day and is discharged after a final basal metabolism reading on the tenth or eleventh day after operation.

During the period of convalescence from operation, the psychic factors are borne in mind as before operation. The room is kept quiet. Visits, even from the members of the staff, are restricted and the patient is surrounded by a cheerful atmosphere. Comments on his condition in his presence should always be favorable, and discussions of problems which arise should not occur in his hearing.

Postoperative Complications.—The postoperative management is not always as simple and uneventful as outlined, for situations may arise which greatly complicate convalescence. These include postoperative nausea and vomiting, thyroid crisis, postoperative hemorrhage, tracheal collapse, edema of the larynx, stridor, tracheitis, and pulmonary complications. I shall comment on the most important of these.

Thyroid Crisis: This is, perhaps, the most serious complication after thyroidectomy. In patients who have been prepared for operation with iodine and other therapeutic measures it is not a frequent occurrence. It begins within the first twenty-four hours after operation and is characterized by increasing tachycardia accompanied by intense restlessness which may proceed to extreme agitation and delirium. The skin is flushed and perspiration profuse. The temperature rises quite rapidly to 104 or 106 F. Nausea and vomiting may be present. These critical signs may at any time recede or they may lead to collapse and death.

The increased nervousness and agitation are best combated by frequent small doses of morphine. The rapid pulse and cardiac irregularity may be benefited by oxygen therapy. Rapid digitalization should be instituted. The intravenous or subcutaneous administration of glucose in saline is of great benefit. Fifty per cent glucose solution given very slowly into the vein or a continuous intravenous drip of 5 to 10 per cent glucose provides the large amounts of fluid required by the patient during a postoperative crisis. The value of iodine in postoperative exacerbations of hyperthyroidism is open to question.

Cardiac Complications: The cardiac complications of thyroidectomy depend partially upon the adequacy of the preoperative preparation. A patient with little cardiac reserve before operation should be digitalized. This may prevent a cardiac break during convalescence.

Nausea and Vomiting: Numerous procedures have been evolved to reduce the nausea and vomiting which so commonly accompany an operation. In thyroid patients vomiting is particularly undesirable, as it puts a strain on the wound and is associated with considerable pain and discomfort. Restricting fluids by mouth immediately before operation and limiting them to frequent small amounts after operation and keeping the room well ventilated and quiet are simple, obvious measures which we employ. Morphine sometimes causes nausea and vomiting, and in cases where it does, other sedative drugs are substituted and overdosage is carefully The nausea and vomiting following avoided. general anesthesia often can be minimized by hyperventilation through the administration of oxygen and carbon dioxide. If vomiting once starts, it is difficult to stop; wherefore efforts to prevent it are well spent.

DR. CATTELL: I should like to ask Dr. Shorr if he will state the regimen he uses in the administration of iodine, as well as the criteria for its usc.

Dr. Shorn: Any form of iodine is effective. It may be breathed in, rubbed into the skin, or taken as Lugol's solution or syrup of hydriodic acid. About that there seems to be no difference of opinion. The actual amount required is small. I should say that there is very good evidence that anywhere from 9 to 15 mg. a day are all that are required in Graves' disease. The larger amounts, as far as I know, do not give any trouble except when iodism occurs. I stress the small requirement of iodine lest we think that larger amounts are necessary when the patient does not appear to respond well. The larger doses, to my knowledge, do not hurt, but the error lies in failing to consider that other factors may account for the unsatisfactory response.

With regard to the preoperative preparation, I am sure that Dr. Glenn shares with me the belief that this should not be routinized and he has laid

down the criteria by which the experienced surgeon recognizes that beneficial effects have occurred, and that the time is ripe for operation. We very frequently carry patients on much longer. The duration of the preoperative treatment depends, in our opinion, on the severity of the illness, its duration, and the presence of complications, particularly cardiac, which should be corrected as far as possible before operation.

The rationale of iodine is twofold: first of all to reverse, or rather to arrest, the pathologic processes, and, second, to allow the building up of reserves. The maximum benefit is achieved, therefore, when both objectives are reached.

Dr. Cattell: Is iodine continued indefinitely if the patient is not subjected to operation?

Dr. Shorn: Iodine may be given indefinitely to the properly selected patient. Indeed, it is our practice to give iodine postoperatively for a year in every instance. Our reason for that is the belief that the operation does not eliminate the basic cause of the disease and for that reason the patient should be protected while the more general factors leading to the disease are being cor-Another rather specific indication is based on the observation that the residual thyroid remains hyperplastic for a long time. If satisfactory involution does not take place, the gland may atrophy with resulting myxedema. Iodine promotes involution of the hyperplastic tissue. Finally, stabilization of the disease may take as long as three or four years after operation. Iodine promotes stabilization, a fact which is especially in evidence in those with signs of recurrence. I think we are inclined to expect too much of iodine. It cannot take the place of attention to the emotional factors which excite the disease. Relapse during iodine administration is likely to be due to a failure to maintain appropriate management of the emotional situation, rather than to the fact that iodine given for long periods of time fails to maintain its reparative action. That is how it comes about that we observe the immediate effects of iodine, which are not too well understood, and then the emotional factors return to increase again the basal metabolic rate. When these emotional factors have been attended to, we commonly see the metabolic rate decline again. It is a challenge to us when a patient does not maintain a satisfactory postoperative state during iodine therapy.

Dr. Gold: In relation to the dosage of iodine for the preoperative remission, is the remission likely to take place more quickly with large doses than with small ones?

Dr. Shorn: Means carried out a series of studies with Thompson in Boston, using rather large doses of iodine. Thompson returned to Chicago and studied a similar series, using only 9 mg, of iodine. The curves were practically iden-

Dr. Wheeler: What, in terms of syrup of hydriodic acid, is that?

Dr. Shorn: One cc. of syrup of hydriodic acid contains about 13 mg.; one minim of Lugol's about 9 mg. of iodine. In other words, a minim of Lugol's is all that is required for the iodine effect of Graves' disease.

Dr. Gold: The dose of 15 mg. is regarded as a small dose of iodine, but even this is a lot of iodine in comparison to the amount in the body. It is as much as there is in the entire thyroid gland. The daily intake of iodine is about 0.2 mg. and the daily requirement is only 0.02 mg. under ordinary conditions. A cc. of Lugol's solution contains about 125 mg. of iodine.

Dr. Shorr: Indeed, studies with radioactive materials have shown that the doses of iodine which we consider small are really very much larger than the requirements of the body in active Graves' disease.

Dr. McLean: Do you employ conservative treatment in Graves' patients with exophthalmos?

Dr. Shorn: Not as a rule. Fairly prompt operation is advisable in order to avoid further impairment of the eyes. The patient who has been treated with iodine continues to have a lowgrade Graves' disease for a month or two before complete remission. One does not like to risk further damage to an already threatened ocular apparatus. Of course, there is the fact that thyroidectomy sometimes increases the exophthalmos.

Dr. McLean: I should like to ask what can be done with nonsurgical means for a patient who develops progressive postoperative exophthalmos?

Dr. Shorn:' The present status of this problem is extremely discouraging because I think we understand it poorly. A variety of explanations have been suggested for this distressing phenomenon. Some of these regard malignant exophthalmos as if it were a purely postoperative phenomenon. We know a little more about the development of exophthalmos in experimental animals under the influence of thyrotropic hor-The well-developed orbital muscles of many lower animals provide a reasonable explanation for the proptotic mechanism. In the human, however, there is considerable difference of opinion as to the possible role of Müller's smooth muscle in this phenomenon. We also know that exophthalmos is induced by thyrotropic hormone in animals, with greater uniformity in the absence of the thyroid, suggesting that thyrotropic hormone itself may be responsible for its development by some yet unknown

train of events. Exophthalmos is frequently very marked in patients with Graves' disease with low metabolic rates, so that it is far greater in degree than the hypermetabolism would appear to warrant. Certain pathologic changes are noted, of particular interest being the degenerated swollen extra-ocular muscles. My inclination is to regard these pathologic muscle changes as of primary importance in the development of exophthalmos. I am also inclined to regard the action of Müller's muscle as participating, since it is smooth muscle and is, unlike skeletal muscle, undamaged in Graves' disease. The changes in the extra-ocular muscles I have been prone to interpret as secondary to the well-recognized defects in muscle metabolism characteristic of Graves' disease. These patients, no matter what the basal rate, have defects in creatine metabolism, as is evidenced by abnormal creatinuria, poor creatine tolerance, and a reduction in the total creatinine. which is our best index of muscle function. These defects apparently remain functional for varying lengths of time, but if uncorrected they lead to actual muscle degeneration similar to that seen in progressive muscular dystrophy. Such degeneration might be anticipated to be most marked in muscles that are being constantly used; in this group fall the extra-ocular muscles which are under constant tension, undergoing rapid movement continuously.

Just how these extra-ocular muscular defects might lead to exophthalmos is a matter of speculation. If there is a great deal of edema, as is very frequently the case, and the muscles lose their strength and elongate, the eye might move forward and the orbit acquire edema fluid or fat, to make this state irreversible. Even a slight influence of the unharmed smooth muscle of Muller would contribute to the exophthalmos. A third factor may be degenerative changes in the orbicularis oculi which, being a striated muscle, might also be damaged. I realize that this does not provide an explanation for the sudden exacerbation of exophthalmos which is occasionally seen after operation, except for the possibility that the eye muscle damage may be at a very advanced stage at the time of operation and the final touches may be added to by the acute reduction in circulating thyroid hormone which usually follows subtotal thyroidectomy. ever the final explanation, I am persuaded to regard the creatine defect as of great significance. On this basis, then, the two therapeutic agents which might be of help in relieving this condition are iodine during the preoperative phase and thyroid hormone thereafter.

DR. McLean: How successful do you find

Dr. Shorn: I do not think that my experience

is large enough to permit me to give you anything but impressions. In many cases, the extra-ocular muscle changes are undoubtedly so far advanced that nothing is likely to help them. In other cases, some regression is observed which may be due to the fact that the changes in the muscle are still functional and reversible. It is a rather general impression that desiccated thyroid is of some benefit, particularly in halting the progress of this condition.

Dr. McLean: My own impression is that the outlook is not very cheerful.

Dr. Gold: How about some of the newer measures in the treatment of Graves' disease?

Dr. Shorn: At least two modern developments in the treatment of Graves' disease have proved extremely promising. One is the use of radioactive iodine and the other of a new chemotherapeutic agent, thiouracil.

The first is a logical development of the use of x-ray in Graves' disease, a procedure whose therapeutic effects were occasionally successful, but all too frequently unreliable. The development of radioactive isotopes of iodine seemed likely to provide a much more effective method of carrying measured amounts of radioactivity to a hyperplastic gland. After a good deal of experimental work on animals by means of radioactive isotopes which had been developed during recent years, experimental studies in humans were carried out by Hertz, Roberts, Means, and Evans in Boston, and by Hamilton and Soley of the Radiation Laboratory at Berkeley, California. The former used radioactive iodine with a half life of twenty-five minutes; the latter, an iodine with a half life of eight days. Both of these radioactive iodines were found to enter the thyroid gland just as did normal iodine, and to be able to carry a definite amount of radioactivity to it. These studies have included relatively few patients and were interrupted by the war, but the results so far, in the hands of both investigators, were extremely promising. We can anticipate, therefore, that the further pursuit of this aspect of therapy may reveal it as a very effective means of dealing in nonsurgical fashion with many cases of Graves' disease.

The second agent, thiouracil, has been under study for about a year and one-half now in a number of laboratories. This therapeutic agent owes its development to the original observations of the McKenzies and McCollum that the sulfon-amides produced thyroid hyperplasia and insufficiency in experimental animals. Further exploration of large numbers of related compounds showed that thio-urea, and particularly thiouracil, produced thyroid hyperplasia and insufficiency in animals. The mechanism of its action has been elucidated largely by Astwood, who showed that

thiouracil inhibited the formation of thyroid hormone in the gland by some type of enzymatic block. As a result, once the pre-existing store of hormone was used up, the state of thyroid insufficiency developed; the anterior pituitary was stimulated to produce more thyrotropic hormone, which then caused an ineffectual thyroid hyperplasia. It was first applied to the treatment of Graves' disease by Astwood and since then has been an active subject of research.

Its effects in the human are similar to those in the animal. With proper dosages, there occurs a reduction in basal metabolic rate and a corresponding improvement in symptomatology. If high doses are continued for long enough, changes comparable to myxedema are induced with a hypercholesterinemia. Our own studies have shown that this diminution in basal rate induced by thiouracil is accompanied by a correction o' the metabolic derangements in calcium, phosphorus, nitrogen, and creatine metabolism which are characteristic of Graves' disease; hence this drug would appear to act in a physiologic manner. The usual therapeutic dose is from 0.6-0.8 Gm. per day, in divided doses, and the customary maintenance dose is 0.1-0.2 Gm. per day The maintenance dose is instituted once the basal metabolic rate has been restored to normal.

A few toxic results have been encountered following the use of this drug, usually during the first two or three weeks of administration. Several cases of agranulocytosis, several skin eruptions, one benign icterus, and several instances of hyperthermia have been reported. These, fortunately, have disappeared upon discontinuation of administration of the drug.

What the eventual fate of patients treated with this drug will be, it is too early to state. Astwood, in a personal communication, stated that two cases of this series have continued to hold their gains after discontinuation of therapy. My own opinion is that the future course of a patient treated with thiouracil could depend upon a number of factors: Those on a profound psychoneurotic basis which would not seem likely to be corrected, either because of reality situations or because of the rigidity of the individual, might be expected to require constant medication. Those in whom the emotional difficulties are less profound, and which originate in factors that are correctible, may very well be able to remain free of symptoms on discontinuation of therapy, providing the emotional aspects of their disease have been properly managed. I suspect that patients with large goiters will eventually come to operation, since they are prone to wide fluctuations in thyroid activity, under even slight stress; and it has been our experience that these patients require maintenance doses of as much as 0.3 Gm. per day.

These impressions persuade me to emphasize again the fundamental importance of the psychotherapeutic approach to Graves' disease. Whatever the percentage of cases which may be suitable for conservative treatment with thiouracil alone, it is undoubtedly going to assume a most important role as a substitute for iodine in the preparation of patients for thyroidectomy. The hyperplastic gland induced by thiouracil, while vascular, is not friable and is readily handled at operation. The remission of symptoms is much more uniform and stable than is produced by iodine and it would not surprise me if it should replace iodine as the orthodox preoperative procedure. We may also expect that further investigations may reveal a drug with a similar action but with fewer toxic side-effects.

STUDENT: I was under the impression, from an article on thiouracil, that in patients with normal basal metabolic rate thiouracil has no effect on the metabolism. I was just wondering what caused myxedema in one of your patients?

Dr. Shorm: I have not done any work on the normal human but we have every reason to expect, from studies on the normal animal, that if the therapy were prolonged, the reduction in basal rate would be eventually obtained.

STUDENT: Is the normal animal less sensitive to thiouracil?

Dr. Shorn: Actually, the largest amount of experimentation has been done on the normal animal. We may regard the temporary resistance of the normal patient as due to the fact that it takes him a long time to use up the stored thyroid hormone and that the experiments carried out so far have not been long enough for the subjects to have used up these stores.

DR. GOLD: Do you put all patients with Graves' disease to bed during treatment here in the hospital?

Dr. Shorn: There is no uniform regimen. On our Service we put them to bed initially and during the early stages of iodine therapy. Then we allow them up for increasing periods of each day, so that by the time they are ready for operation they are ambulatory. We feel that when ambulatory and comfortable the patient is in excellent shape for thyroidectomy. Most of our patients treated with thiouracil are ambulatory except during the initial stages, when their basal metabolic rate is high.

Dr. Charles H. Wheeler: A few years ago it was customary on the medical service not to transfer a patient to surgery until the metabolism was stabilized at a fairly low level—not normal, by any means, but stabilized—the pulse was slow, gain of weight had started, and the patient looked and felt well. It was my impression over a period of four or five years here in the hospital that it

was rare for a patient who fulfilled these criteria to have any difficulties after the operation. Recently I saw several patients in whom these criteria were not fulfilled; they had reactions after operation. In talking the matter over with the surgeons I gather that they have a much less conservative viewpoint. They are prone to treat the patient medically for ten days or two weeks. They consider that enough, and go ahead and operate whether or not these criteria were fulfilled. I am wondering—is our viewpoint too conservative?

Dr. Shorn: It is a very refreshing viewpoint, Dr. Wheeler, and I would like to see it generally held.

## Summary

Dr. Gold: We may now summarize briefly a few of the essential points concerning the treatment of Graves' disease which have been brought out in the course of the remarks this morning. The measures used at the present time for the control of this disease find their rationale in the present concept of the nature of the disease. The hyperplasia of the thyroid tissue, the enlargement of the gland as a whole, and its hypersecretion, play a prominent role in the clinical picture. but represent only a part of it. Graves' disease is a systemic disorder of a very complex nature involving, besides the thyroid, other structural, physiologic, and chemical changes. Patients who develop this disease have a constitutional predisposition, with characteristics similar to those who develop ulcer. There is a strong familial tendency. This disease belongs among the group of psychosomatic problems. The patient's environment and capacity for mental adjustment to life's situations play an outstanding role in the causation of the disease. Emotional impacts are precipitating factors; also disorders of nutrition, infections, and such unstabilizing influences in the endocrine system as occur in puberty, menopause, and pregnancy.

Among the manifestations of the disease which were discussed were nervousness, emotional instability, loss of weight, increase in the basal metabolic rate, hyperplasia and enlargement of the thyroid gland, disorder of carbohydrate metabolism with glycosuria and abnormal blood sugar curve, increased protein metabolism, calcium imbalance, and disorder of creatine metabolism.

There are changes in the liver and destruction of muscle tissue. The term "masked hyperthyroidism" applies to those cases of Graves' disease in which only part of the clinical picture is present in which the nervous symptoms outstanding in the classical case are in abeyance, more especially those types in which the predominating symptoms relate to the cardiovascular and gastro-intestinal systems.

By far the majority of cases of Graves' disease come to operation. The most serious aspects of the disorder subside after a successful subtotal thyroidectomy. It is not, however, the complete solution of the problem. Many symptoms remain. The medical treatment of Graves' disease is, therefore, of paramount importance, in a few cases as the sole treatment, and as pre- and postoperative treatment in the others. Meticulous attention to the control of psychic factors is an outstanding requirement of any plan of treatment of the patient with Graves' disease. Sedatives in appropriate amounts sufficient to control nervousness are helpful. They should be used in only moderate doses; more than 30 mg, of phenobarbital a few times a day are not necessary and may lead to toxic disturbances.

Iodine administration plays a significant role in the treatment. There is some difference of opinion regarding the amount of iodine and the length of time it should be given. There is a tendency to give more iodine than appears to be necessary. There is evidence that the iodine requirements of the patient with Graves' disease may be well satisfied with doses of 6 to 15 mg. (0.5 to 1 cc.) of syrup of hydriodic acid daily, and there is some question as to whether the very large doses, such as 1 cc. of Lugol's solution (125 mg. of iodine) daily, are necessary. The view has been expressed that the "escape" of the patient in an "iodine remission" may be due to laxity in the control of the emotional factors which play a dominant role in precipitating active symptoms of Graves' disease.

There is indication that the use of radioactive iodine and the new drug, thiouracil, marks a significant advance in the nonsurgical management of Graves' disease.

The details of the preoperative treatment of Graves' disease, the postoperative treatment, the treatment of postoperative vomiting, and the complication of the thyroid crisis were discussed.

## NEGRO CENTER FOR MATERNAL CARE

A new maternity center for Negro patients, operated by Negro professional groups under white supervision, has been organized near Birmingham, Alabama. Slossfield, as it is called, has developed into an important teaching center for Negro physicians and nurses. Already it has served to raise the standards of obstetric and neonatal care. . . . Both

maternal and neonatal mortality have shown a striking reduction. The influence of this endeavor will be widely felt; similar ventures may well be initiated and supported in the North as well as in the South, so that maternal care for Negroes may be elevated to that of the rest of the community.—J.A.M.A., Feb. 19, 1944

## Case Report

## TETRAPLEGIA RELIEVED BY REMOVAL OF CORD TUMOR

ARTHUR ECKER, M.D., Syracuse, New York

IT IS important to be reminded that even though cervical arthritis may be roentgenographically demonstrable, root pains referred to the neck and shoulder may really be due to a spinal cord tumor. The following case report illustrates this fact. also lends support to the observation that dissociation of anesthesia is a frequent accompaniment of lesions of the cervical portion of the cord and does not necessarily indicate an intramedullary lesion. Furthermore, this case illustrates the advi-ability of offering surgical relief in cases of spinal cord tumor even though the neural disability has gone to the stage of paralysis of all four limbs and marked limitation of respiratory movement. Finally, the case to be presented illustrates the fact that atrophy of the hands in cases of high spinal cord tumor is recoverable following relief of pressure from the

#### Case Report

The patient was referred by Dr. F. J. Mahrer, on August 19, 1941, because of progressive paralysis of all four limbs. The patient was a 50-year-old Italian woman who had had a persistent fistula on the anterolateral aspect of the right side of the neck for thirty years. The rest of the past history and the family history were noncontributory.

For eight years the patient had had pain in the right side of the neck and shoulder. This pain reliable to the side of the neck and shoulder.

radiated to the region of the deltoid muscle and was made worse when she strained. For four years there had been progressive numbness of the right upper limb and for three years progressive weakness of both arms. For two years the patient had been unable to move her toes and there had been progressive numbness of both legs. For eight months she had needed help in walking and six weeks before admission her legs had become completely paralyzed. For a few days she had felt as though she were wrapped in a tight binder from the neck down. She also complained of severe generalized burning pain.

General physical examination revealed no abnormality except what was apparently a branchial cleft fistula in the right side of the neck and the neurologic changes to be described. There was practically complete flaccid paralysis of all four limbs. There was marked atrophy of the intrinsic muscles of the right hand, moderate atrophy in the muscles of the forearms, and some atrophy in the muscles of the lorearms, and some arrophy in the muscles of the upper arm, especially the deltoid. The patient was practically unable to move the fingers of her right hand and was unable to pronate or supinate the right forearm. There was very slight movement at the hips and shoulders. The or supinate the right forearm. There was slight movement at the hips and shoulders. maximal chest expansion from complete expiration

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to complete inspiration was one-eighth inch (3 mm.) measured either at the upper or lower region of the thorax. Although there was a normal gag reflex and the larynx was not paralyzed, the patient was unable to cough because of the paralysis of the respiratory muscles. There was hypoesthesia and hypalgesia throughout the entire body up to the third cervical segment. Both upper limbs were analgesic. Joint sensation was absent in the right hand but normal in the distal portions of the other three limbs. The tendon reflexes were all increased. There was transitory patellar clonus on each side and ankle clonus on the right side. Hoffmann's and Babinski's signs were present on each side. The abdominal reflexes There was tenderness over the were absent. spinous processes of the third and fourth cervical vertebrae.

Routine roentgenograms of the cervical spine revealed evidence of infectious arthritis with productive bone change between the fifth and sixth cervical There was neither enlargement of the intervertebral foramina, erosion of the pedicles, nor evidence of platybasia. Lumbar puncture revealed a clear, colorless fluid which was under pressure of 8 cm. of water, and which contained 167 mg. of total protein per 100 cc. There was no response to bilateral jugular compression.

The preoperative diagnosis was extramedullary cord tumor on the right side opposite the third cervical vertebra, probably meningioma or neurofibroma. It was decided to perform the operation under local anesthesia in order not to increase the secretions in the upper respiratory tract and to maintain the gag reflex.

Operation was performed on August 26, 1941. Because right hemilaminectomy yielded inadequate exposure, laminectomy of the first five cervical vertebrac was performed. The patient was never in respiratory distress and her blood pressure was maintained at about 110 mm. of mercury systolic by venoclysis of plasma. The dura was under increased tension and did not pulsate normally. When the dura was opened, there was seen an extramedullary cord tumor which displaced the cord to the left at the level of the atlas and just below it (Fig. 1). The spinal cord had to be retracted further to the left to permit complete removal of the tumor, almost half of which extended in front of the cord. After removal, the tumor resembled a disk, approximately 2.5 cm. in diameter and 1 cm. thick, which had been folded on the cord (Fig. 2). It was a neurofibroma which arose from the right second cervical nerve root. The cord had been crushed to about one-third its normal size and yet the patient breathed as well after the operation as before.

plained of being thirsty and was in good condition. Convalescence was uneventful and the wound healed by primary intention. On the first and second postoperative days there was occasional diffi-culty in breathing. This was relieved by spinal puncture and by the administration of oxygen. On

However, postoperatively, there was complete anal-

gesia in the feet. Closure was made without drainage. At the end of the operation, the patient com-



Fig. 1. Operative site showing tumor in situ.

the third postoperative day, pain sensation in both upper limbs returned. On the fourth postoperative day the patient began to perspire for the first time in three or four years, voluntary movement began, and the patient was able to cough. On the seventh postoperative day, she began to move the fingers of her right hand for the first time in three years. At this time sensation to pinprick and light touch was good throughout most of the body. Chest expansion was between one-quarter and one-half inch. On the minth postoperative day voluntary control of the bladder was present. On the fourteenth postoperative day spinal puncture revealed a clear, colorless fluid and prompt response to jugular compression, indicating freedom from subarachnoid block.

The patient was dismissed from the hospital on September 20, 1941, twenty-five days following operation. At this time she had good strength in the left lower limb, fair strength in the left upper and right lower limbs, and a little strength in the right upper limb. Touch and pain sensation were normal thoughout except for anesthesia and analgesia in the left fourth and fifth lumbar and first three sacral segments. There was perfect control of the bladder. At dismissal from the hospital the patient was unable to walk but was sitting up in bed. Although roentgenograms of the cervical spine revealed no dislocation, it was thought best to provide a plaster cast which was to be worn whenever the patient sat up or stood.

On December 2, 1941 (fourteen weeks postoperative) the patient said that she had not worn her cast as directed. However, examination revealed that the scar of the incision kept the head from being fully flexed. There was moderate weakness in the right deltoid and slight weakness throughout the rest of the muscles on the right side. There was moderate atrophy of the right thenar eminence. All the muscles in the left side were normal. The patient was able to walk a few yards by herself.

The patient was again re-examined on June 23, 1942 (forty-three weeks after operation). She had been feeling fine. She was doing much of her housework, including an appreciable amount of cooking, washing dishes, and even washing clothes. She had also done some knitting. She had an occasional sense of heaviness and burning in the right occipital region and a tendency to swelling of the ankles Examination revealed that the patient walked with a slight limp on the right and that she was able to walk on her toes. There was moderate limitation of all movements of the neck, and when the head was bent backward, there was pain radiating down the



Fig 2. Operative specimen, inner aspect.

lateral aspect of the right upper arm. Tenderness was localized to a site on the operative scar at about the level of the fourth cervical vertebra. Pressure on this site caused pain to radiate to the lateral aspect of the right upper arm. There was perfect movement of the fingers of both hands and normal grip. The intrinsic muscles of both hands showed no atrophy. Abduction and adduction of the fingers were normal. The patellar and right The left biceps reflex biceps reflexes were brisk. was diminished. Hoffmann's sign was still marked on the right but slight on the left. On plantar stimulation there was dorsiflexion of the right great toe without fanning of the other toes. There was normal plantar response in the left foot. Sensation was normal. Chest expansion at the lower border of the ribs was 3 cm.—that is, ten times what it was before operation. Roentgenograms of the cervical spine revealed no change in the arthritis previously described.

#### Discussion

Tumors of the cervical portion of the spinal cord have recently been reviewed by Craig and Shelden, who pointed out that atrophy of the muscles of the arm or hand was most commonly associated with tumors affecting the four lowermost cervical segments.

The present case is an unusual one because there was marked atrophy of the intrinsic muscles of the right hand while the tumor lay above the level of the second cervical vertebra. Furthermore, the atrophy disappeared seven months after the removal of the tumor.

A similar case was previously described in which atrophy of the hand disappeared eight months after removal of a tumor which arose anterjor to the medulla. It is significant that in both cases there was a large mass of tumor anterior to the uppermost portion of the spinal cord. It is likely that the tumor pressed on the anterior spinal artery and thus interfered with the circulation to the anterior horn cells in the lower cervical region. In any event, it is clear that atrophy of the intrinsic muscles of the hand may result from the presence of an extramedullary tumor on the anterior aspect of the uppermost cervical segment of the spinal cord and is a recoverable condition.

Gardner successfully removed a meningeal tumor from the region of the foramen magnum which had caused not only tetraplegia but also enfeeblement of respiratory movement and intermittent cyanosis as well.

The presence of roentgenologically demonstrable arthritis of the lower cervical spine may have been a pitfall in diagnosis in the early stages and may account for some residual symptoms, such as limitation of movement of the neck. As a matter of fact, the patient had refused to undergo lumbar puncture, which might well have led to the correct diagnosis at an earlier stage.

#### Summary

There is reported a case of tumor of the uppermost portion of the spinal cord which had progressed to tetraplegia with enfeeblement of respiratory movements. The tumor was removed successfully.

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## NOTED EXPERT IN TRAINING OF DEAF JOINS RED CROSS

Continuing its efforts to provide all possible recreational and social services to war-injured veterans, the American Red Cross has obtained the services of Miss Betty C. Wright, one of the nation's outstanding pioneer social workers in the field of assistance to the deaf, it has been announced by Red Cross national headquarters.

Miss Wright, deaf herself, has been granted leave of absence from her post as executive director of the American Society for the Hard of Hearing. She will act as consultant to the Red Cross on special problems of war-deafened soldiers, dividing her time between Deshon General Hospital, Butler, Pennsylvania, Hoff General Hospital in California, and Borden General Hospital in Oklahoma. These hospitals have been designated by the Army for the special care of deaf veterans.

The appointment had the full approval of Col. M. R. Mobley, who developed the Army program for treatment of soldiers whose hearing is impaired

or lost in service. Born and educated in Virginia, Miss Wright worked with the deaf in the Navy during World War I, and has been with the American Society for the Hard of Hearing since 1923.

Re-education of such veterans is one of the Army's primary concerns. It is the Army's aim, as well as that of the Red Cross supplemental service, to allay the feeling of a veteran that he is shut off from sur-rounding activity. Everything possible is done to prepare him for civilian life, both practically and psychologically.

The Army's program, including specialized medical care, adjustment of acoustical devices, and teaching of lip reading, is supplemented by Red Cross hospital units which provide visual recreational activities and social services to the men while hospitalized. The units also assist in filing pension claims and provide information on vocational training. Families are carefully prepared through Red Cross channels for return of the handicapped.

It will be Miss Wright's aim, through the Red Cross hospital program, to bring to each deafened veteran the realization that he can be and is a productive member of society; that he has a wide choice in occupation, either immediately through the United States Employment Service or through retraining or special instruction; and that he is not shut off from activities he enjoyed before injury.

#### STANFORD UNIVERSITY RECEIVES GRANT FROM NATIONAL FOUNDATION FOR IN-FANTILE PARALYSIS

Realizing the acute need for physical therapy personnel, partly resulting from the war, the National Foundation for Infantile Paralysis has made a two-year grant totaling \$34,080 to the Stanford University Shahila Warnel ford University School of Health (Women) at Stanford University, California.

This grant, which is in addition to other funds given by the National Foundation to this University, is for the twofold purpose ofstrengthening the physical therapy technicians' school and of preparing syllabi and text materials for the use of physical therapy instructors and their students.

Under this program selected students will be provided specialized training designed to prepare them to become skilled teachers of physical therapy.

"The 1943 epidemic of infantile paralysis emphasized the serious lack of physical therapy technicians and qualified teachers," Mr. Basil O'Connor, president of the Foundation, said. "It would seem that the success of any attempt to develop a satisfactory corps of technicians in the United States would depend to a considerable extent on having adequately trained instructors engaged in teaching this subject, and suitable text materials."

# Case Report

## LEIOMYOSARCOMA OF THE DUODENUM

KENDRICK McCullough, M.D., Yonkers, New York

THIS case is unusual as regards type and location. While primary leiomyoma is fairly common in stomach and small intestine, the malignant form rarely occurs in the gastrointestinal tract, and only 10 cases have been previously reported in the duodenum in the summary of Hunning and Garland.¹ Out of a series of cases of malignancy of the small intestine reported by Mayo,² numbering 108, only 10 were leiomyosarcoma and of these only 2 were duodenal.

This case has a number of features in common with several of those previously collected. The onset was characterized by general weakness, pain in the upper abdomen, a palpable mass in the left upper abdominal quadrant, anemia, and persistent high temperature. The sequence of ulceration of the tumor, sinus formation within the primary growth, formation of secondary abscesses in other organs, found in 4 of the previous cases (Von Salis, Foshee and McBride, Andersen and Doob, Hunning and Garland papeared to underlie many of the above symptoms, and the clinical picture was that of an inflammatory process. The precipitating cause of death was the multiple abscesses and not the presence of the tumor or its metastasis.

A diagnosis of leiomyosarcoma may be made in the presence of an upper abdominal mass with accompanying signs of inflammation, such as continued high temperature, pain, weakness, and anemia, and in the absence of the signs of gastric ulcer or carcinoma or neoplasm of the pancreatic head, and without bacterial evidence of any specific enteritis.

#### Case Report

A white woman of 42, admitted twenty-two days before death, had a persistent high temperature, headache, general weakness, and pain in the left flank. The duration was not known, but she had had a similar attack several months before. Her past history showed little beyond the usual childhood diseases, three pregnancies, no miscarriages, some excess of blood and clots with each menstruation.

Examination on admission revealed poor nutrition, waxy pallor, clevated temperature, and semistupor. Respiratory excursions were increased with dyspnea, and no dullness on percussion. The heart showed no apparent enlargement, no murnurs, rubs or thrills; the rate was accelerated but regular, and the blood pressure was 130/88. The abdomen showed a soft mass in the left upper quadrant, but no evidence of free fluid. The liver edge was palpable. X-ray showed a suggestion of a soft tissue mass in the left upper abdomen, displacing the intestines. There was marked anemia,

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 4, 1943. From the Bureau of Laboratories, Department of Public

From the Bureau of Laboratories, Department of Painte Health, City of Yonkers, New York, Dr. Ward H. Cook, Director. Case of Dr. L. A. Volino, Youkers General Hospital.

1.5 to 1.6 million red blood cells, with improvement after transfusion to 2.9 million, the hemoglobin rising from 15 per cent to 48 per cent, Sahli. The red cells were often large, varied much in size and shape, and an occasional normoblast was present. Leukocytes were numerous, 23,000-28,000, with many neutrophils.

Bacteriologic examination showed little definite result. There was no agglutination by the patient's scrum of Bacillus typhosus, paratyphosus A or B, abortus or tularensis. The typhoid group of organisms, B. typhosus, paratyphosus A and B and dysenteriae, was not found in the feces. Two blood cultures, taken the day of admission and one week after, gave no growth. The Wassermann

reaction was negative.

Progress notes mention the continued high temperature, which varied within one degree of 102 F., with occasional peaks of 104 and 105 F. The mass was always palpable and felt round and freely movable. X-ray showed the kidneys to be in usual position and of the usual size. Sulfadiazine and sulfathiazole did not seem to affect the patient's condition. In the last week the right costal margin became tender and rales appeared in the left side of the chest. Death followed increasing weakness and dehydration.

The autopsy, done six hours after death, showed the body of a white female of early middle age, 159 cm. long, weighing about 55 Kg., without rigor and with slight dependent lividity and edema of the ankles. Nothing unusual appeared on external inspection. The incision showed no excess fluid in the abdomen. The serous surface was smooth and glistening, but with some vascular congestion about the duodeno-jejunal junction, which was displaced forward. Dissection of the gastrointestinal tract showed a normal-appearing stomach and first and second portions of the duodenum. The third portion had a mass in its posteromesial wall just after it had crossed the aorta. The mucosa over this showed a circular opening with slightly raised edges.

The mass was nearly spherical, 8 cm. in diameter, and appeared to lie in the duodenal wall. It was composed of firm gray tissue with a smooth and glistening cut surface. There were many branching sinuses running through it and opening into the defect in the mucosa. They were lined by soft, pale-yellow tissue and contained thick, grayishyellow liquid. There was a complete capsule separating the mass from the tail of the pancreas and the other retroperitoneal tissue. Nothing unusual was

found in the rest of the intestine.

The liver weighed about 2,300 Gm., showed many abscess cavities, the largest in the center of the right lobe, 10 by 7 cm. They were lined by thick, rough, pale gray, soft tissue and contained thick, greenish-gray liquid. One solid white nodule, 0.5 cm. in diameter, was found in the hepatic substance. The hepatic tissue outside the cavities was smooth, pale brown, and homogeneous. The uterus was of normal size, but its wall contained two encapsulated firm white masses, 2 and 3



Fig. 1. Longitudinal cut through tumor showing sinus opening on mucosal surface.

cm. in diameter. Other abdominal organs showed no unusual features.

The thorax showed normal-appearing right pleural and pericardial cavities and mediastinum and complete obliteration of the left pleural space by loose fibrinous adhesions. The heart weighed 350 Gm.; it showed no valvular or coronary abnormalities. The muscle was soft and flabby, pale reddish gray. In the left ventricle, one of the columnae carneae attached to the septum showed a small cavity, 0.6 cm., within the substance, filled with thick gray liquid. Much of the lower lobe of the left lung was occupied by firm, pale gray tissue, excavated by many abscesses filled with thick, yellowish-gray liquid and lined by soft, rough, gray material. The rest of this lung and all of the right were crepitant, pale gray, without consolidation. Bronchi showed rough, grayish-red mucous membranes.

Histologic examination of the duodenal mass showed complete ulceration of the mucosal surface, tumor tissue with congested vessels just beneath, covered by leukocytes and fibrin. The sinus opening here and branching through the tumor was filled with leukocytes and necrotic material and lined by leukocytes and fibrin. The mass extended from the ulcerated mucosal surface down to the inner layer of the muscularis, with which it was contiguous. The cells of the mass were of spindle shape, slightly larger than the fibers of the muscularis, with oval nuclei lying parallel to the long axes of the cells. In the deeper portion the cells had pale-staining nuclei and eosinophilic cytoplasm like those of smooth muscle, but they ran in all directions, interlacing, instead of lying in regular bundles of parallel cells. Near the surface they showed larger, hyperchromic nuclei, occasional giant nuclei, and many mitotic figures. On staining by the Vice Circumstant and the cells and nuclei of by the Van Gieson method the cells and nuclei of the tumor appeared yellow, and there was a very delicate fibrous stroma which took a red stain.

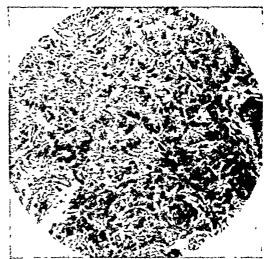


Fig. 2. Photomicrograph of tumor.

In the tumor were many congested capillaries, often containing many leukocytes, and there were scat-tered leukocytes. The small nodule in the liver was the only metastasis found. It was composed of spindle-cells which took the yellow of Van Gieson's stain. The cavities in the liver, in the lower lobe of the left lung, and in the columna carnea of the heart were filled with leukocytes, lined by fibrin, and surrounded by dense granulation tissue. The uterine masses were leiomyomata, but with no sign of malignancy.

Culture from the sinus in the duodenal tumor and from the abscesses in the liver gave growth of Streptococcus viridans, which produced only a small amount of methemoglobin. Mixed with this were Staphylococcus aureus and B. coli in small numbers.

#### Summary

A case is reported of leiomyosarcoma of the duodenum, complicated by ulceration, sinus formation, and metastatic abscesses of liver, lung, and heart muscle.\*

\* Acknowledgment is made to Dr. Albert Hartzell and Mr. L. P. Flory of the Boyce Thompson Institute and to Miss D. Kuhlmann of the Westchester Cancer Committee for the photographs, and to Dr. F. W. Stewart of Memorial Hospital for aid in diagnosis.

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Even with the comparatively low rates of tuberculosis mortality prevailing these days, it is estimated that in the entire world tuberculosis still causes more than two million deaths in a single year. Godias Drolet, in Clinical Tuberculosis, edited by Benjamin Goldberg, M.D., 1942

## Tuberculosis Abstracts

## Hemorrhage in Pulmonary Tuberculosis

Pulmonary hemorrhage is one of the most distressing phenomena encountered in medical prac-The patient is gravely alarmed and the physician is confronted by bleeding that comes from a point deep within a delicate organ enclosed in a rigid framework. To combat the bleeding there may be only slowly or doubtfully effective physio-

logić mechanisms.

Psychologic effects to one side, hemoptysis generally is indicative of serious pulmonary disease. It is recognized that unexplained blood-spitting must be considered due to tuberculosis until proved otherwise. However, occasional causes include such nontuberculous diseases as bronchiectasis, bronchogenic carcinoma, lung abscess, rheumatic heart disease, and various minor nose and throat affections. People apparently in good health and presenting negative physical signs and few or equivocal roentgen findings represent especially puzzling problems when they report having coughed up blood. In all cases it is essential that we exhaust every means at our disposal of tracking down the reason for obscure lung hemorrhage.

The causes of hemoptysis are still not clearly understood. Blame has been laid on deficiency in one of the factors concerned in blood coagulation, on tonic, nervous, or endocrine factors, on erosion of a vessel wall by a tuberculous process, on rupture of a small aneurysm within a cavity. While the most serious hemorrhages occur in old, fibro-ulcerative tuberculosis, small or moderate hemoptyses may be seen in early disease, sometimes as the first recognizable symptom. Softening of a lesion or progression of an established process may be accom-

panied by hemorrhage.

Among 1,000 patients consecutively discharged from the Blue Ridge Sanatorium, Charlottesville, Virginia, only those were included in this study who gave a clear-cut history of spitting up one dram or more of blood, or who suffered a hemorrhage during their stay in the institution. "Streaking," "streaked sputum," and indefinite history of hemoptysis were excluded. In all, 905 cases of tuberculosis, made up of 424 males and 481 females, included 220 who had hemoptyses during the active phase of the disease. This is an incidence of 24.3 per cent, regardless of the duration of observation.

Some of the largest hemorrhages in this series occurred in a few patients showing bronchiectasis or rheumatic heart disease. Bogen, including in-stances of streaks and clots, found that over half of his hemoptysis cases expectorated less than two ounces of blood. The present study records 106 hemorrhages of stated amount, ranging from one dram to two quarts, the average being five ounces. This did not include repeated bleeding from the same individual on the same or subsequent days. since these were not felt to be distinct episodes, but more or less a continuation of the first. In approximately 40 per cent of the cases the episode of hemoptysis was repeated at least once.

Hemorrhage was the presenting symptom, often the initial evidence of trouble, in 60 cases. Perhaps nothing drives a patient to seek medical advice faster than the expectoration of a single mouthful of blood, although 23 patients did nothing about

their initial hemorrhage.

When the local physician was consulted by persons with hemorrhage in cases of previously un-

diagnosed tuberculosis 70 per cent were properly diagnosed, though it is estimated that 84 per cent correct diagnoses could have been reached by further

Only 49 cases in the entire hemoptysis group failed to show a cavity on x-ray examination and of these 11 were found to be nontuberculous. No less than 83.4 per cent of the tuberculous cases with hemorrhage had a positive sputum! Of the 170 patients in this latter category, 159 had roentgenograms revealing consolidation, honey-combing, punching out, or frank cavitation.

Correlation of hemoptysis with physical exertion, with direct chest trauma, or with mechanical dis-turbance of the lung is possible in some cases, though hemorrhage may and often does appear when the patient is at rest, perhaps during sleep, In only 28 cases in this study was there either a specific history of a precipitating factor or of its absence. In 10 patients hemorrhage was related

to one or more menstrual periods.

Among the graver consequences of pulmonary hemorrhage must be listed strangling and asphyxia from massive bleeding, fatal blood loss in the cachectic patient, and the commoner and everpresent danger that blood from a cavity which is generating a positive sputum will spread the infection to other parts of the lungs, giving rise to an acute tuberculous bronchopneumonia or a massive caseous pneumonia. Obviously, repeated episodes of blood-spitting multiply the chances for such complications to occur.

Summary and Conclusions
1. In a study of 1,000 sanatorium tuberculosis patients it was found that hemorrhages occurred in 24.3 per cent of them. 2. The average size of hemorrhage was five

ounces. Forty per cent of hemorrhages were eventually repeated.

3. In 60 patients, the first remarkable symptom

was hemoptysis. 4. Seventy per cent of cases with a history of hemorrhage before diagnosis were properly diagnosed by the local physician, when he was consulted.

However, 13 per cent were misdiagnosed. 5. Most tuberculous patients who hemorrhage have cavitation visible on x-ray examination; 83.4 per cent of this series had a positive

Trauma to the chest, strenuous exercise, mechanical disturbance of the lungs and, in females, the menstrual period are definite precipitating fac-

7. Small hemorrhages often occur from early lesions at the height of the catarrhal and toxemic symptoms which probably signify softening. These are not usually serious and may, in the long run, be beneficial if they call attention to an undiagnosed tuberculosis. However, larger hemorrhages which occur in chronic ulcerative tuberculosis, while rarely immediately fatal, are accompanied by many unpleasant and dangerous possibilities. Of the twelve deaths which occurred in the sanatorium after hemoptysis, it is felt that five were directly or indirectly the result of the hemorrhage.—Hemorrhage in Pulmonary Tuberculosis, George R. Minor, M.D., American Review of Tuberculosis, August, 1943. Reprinted from Tuberculosis Abstracts, January, 1944

## Mental Aspects of Aviation Medicine

More than two million persons now fly each year, exclusive of military flying, and, therefore, every practicing physician must have knowledge concerning the effect of flying on the human economy, said Colonel Eugen G. Reinartz, Medical Corps, U.S. Army, Commandant, School of Aviation Medicine Randolph Field, Texas, in a recent address. A percon might fly in spite of a physical handicap, he said, but with a marked handicap of psychogenic origin, loss of stability, or improper coordination of mind and body, flying would be unthinkable. Some take flying training in their stride, and weather all the new stresses imposed upon them, while others are unable to sublimate their difficulties. An important fact brought out by Colonel Reinartz was that war conditions and the exigencies of the Service had produced no novel or unique phenomena. He then discussed some of the syndromes encountered by flight surgeons in aviation.

Aeroneurosis.—This functional nervous and psychic disorder occurs frequently in aviators and is characterized by gastric distress, nervous irritability, minor psychic disturbances, fatigue of the higher voluntary mental centers, insomnia, and increased motor activity. It may develop in persons who are undergoing flight training, but is more likely to occur in those with whom flying is a profession. The principal exciting causative factor is emotional stress.

Serious airplane accidents invariably produce profound psychic shock, the effect of which on the central nervous system cannot be accurately evaluated. The witnessing of crashes and the death of one's friends in the most violent type of death known leaves a lasting emotional scar. In order to fly, such experiences must be repressed and in the repression new conflicts may arise. The instinct of self-preservation always brought into play in flying frequently arouses emotional disturbances, and although the fear engendered is repressed, the effects of the subconscious nervous trauma are cumulative and have a distinct bearing on the development of aeroneuro-

Anoxia.—Experimental work on the effects on the brain of repeated anoxia indicates that prolonged periods of significant oxygen deprivation never leave the brain unharmed. These experiments seem to point to the possibility of a gradual lowering of cerebral pressure in persons repeatedly exposed to an in-adequate supply of oxygen. These findings are of great significance since the war in the air, at almost unheard of altitudes, has assumed such large proportions.

Aeroembolism.-This condition is described as a disease produced by a rapid decrease of pressure below one atmosphere, such as may occur in aircraft flights to high altitude and which is marked by the formation of nitrogen bubbles in the body tissues and fluids. The formation of nitrogen bubbles in the body at high altitudes is fundamentally the same physical process as is found in "caisson disease" or "bends." The symptomatology depends upon the portion of the anatomy in which the bubbles of nitrogen lodge. In the spinal fluid, they cause increased intracranial pressure with attendant symp-In the tendons, fascia, periosteum, nerve sheaths, and bone, they cause pain. Nerve pain may be in the form of a descending neuritis with marked tenderness along the course of the whole nerve, or it may be only peripheral, affecting the nerve endings.

The most frequent site of pain is around one or more joints and this is usually the first indication of an impending attack of aeroembolism. may be mild at first, but rapidly becomes almost intolerable. The prophylactic treatment of this condition is, of course, the restriction of flying below levels at which this disease is likely to occur.

Airsickness.-While airsickness, from a purely medical aspect, is ignored by many, it is nevertheless a major problem in aviation. Candidates for flying training who give a history of seasickness, car sickness, train or swing sickness, usually develop air-sickness in training. The seriousness of an attack and its effects are not limited to the exact time of flight, but may cause a disability lasting hours after the flight is concluded. There is no case on record of permanent ill effects or of death from airsickness. Airsickness is not only one of the most far reaching but also one of the most important unsolved problems of aviation medicine.

Epilepsy.-The electroencephalograph is being used for the detection of the frank epileptics, and the possible detection of those who have the epileptic type of personality and reactions without experiencing the seizures. The types of electroencephalograph patterns found in successful pilots and unsuccessful "wash outs" are being studied with the view

of aiding in the selection of pilots.

Fear.—Fear in some form or another is frequently experienced while flying. This is especially true in combat flying. If the effort is long continued, fatigue sets in and creates a fear of incapacity, fear of failure, and a fear of inferiority. It is common sense to be afraid of real danger. It is the problem of the flight surgeon to elucidate, to beginning flyers especially, the facts of the situations in which they find themselves. Real knowledge is one of the best antidotes for unfounded fear.

Noise.—It is a matter of common knowledge that very loud sounds produce sensations of discomfort, at times amounting to acute pain and with persistent ringing in the ears. Any factor, such as noise, which tends to lower the physiological level of activity of an organ is especially undesirable in pilots who are exposed to anoxia and other resultants of altitude.

Cold.—The effect of cold on flying personnel has been the subject of much study. While some experiments are conducted at actual altitudes in airplanes, most of the research has been done in the refrigerated altitude chamber, where conditions can be better controlled. It is hardly possible to keep warm in the low temperatures encountered at high altitudes. All manner of symptoms arise, beginning with the sensation of chilliness and progressing to actual pain. The hands and the feet are the first to be affected. Some of the most serious effects of cold upon the pilot are those in the psychic field and are due to the physical

discomforts experienced.

Vibration.—Vibration generally creates tenseness and muscle fatigue. This may be due to the action directly on the muscles and bony framework or may be due to the mental effect produced by vibration with its secondary tensing of the musculature. Whatever the reason, fatigue results.

In conclusion, Colonel Reinartz states that much important research is being carried on in the psychiatric aspects of aviation medicine. It is a vital problem to which the medical profession is giving increasing consideration .- Medical Record

# Declares the Motor Unfitness of Our Young Men is Appalling

The proportions of motor unfitness among young men are appalling, Thomas K. Cureton, Ph.D., Urbana, Illinois, declares in the Journal of the American Medical Association for September 11, 1943 in a report of his findings from a study of the motor fitness of young men at the University of Illinois. By motor fitness is meant the capacity to run, jump, dodge, fall, climb, swim, ride, lift and carry loads, and endure long hours of continuous work.

From his study Dr. Cureton also presents the

following conclusions:

"Physical training programs are not compensating rapidly enough for urbanization with its associated mechanization, indoor work, dependence on motor vehicles, and lack of the necessity of hard physical

work in youth.

"Large numbers of young men are entering adult life unconditioned and unmotivated to maintain physical fitness. This trend may contribute greatly to high accident rates, rapid loss of health after the age of 30, and widespread chronic disease because of the lack of preventive hygiene and conditioning work for the body.

"Physical education and recreational programs have been inadequate, possibly because of inadequate time, facilities, and leadership. In addition, the programs too infrequently focus on the physical fitness objective in terms of big muscle and organic endurance criteria. The socialization of the programs has possibly hurt the conditioning value of the activities. Many activities, such as bowling, dancing, socialized games, archery, bait and fly casting, badminton, and tennis, possibly contribute very little as they are taught in typical physical education or recreation classes.

"Basic motor fitness training would include deliberate emphasis on ability in a wide range of activities for balance, flexibility, agility, strength, power, and endurance, apart from health knowledge, rules of the game, social play relations, or form in refined physical skills.

"The fact that 60 per cent of those failing to pass the motor fitness test cannot swim 100 yards, and 85 per cent of these cannot swim 440 yards, is a deplorable fact which indicates lack of organization in the schools to teach the important skills of swim-Thousands of drownings in the war are directly attributable to this omission. . . .

"These facts imply the great importance of physical fitness work from the dynamic approach as used in physical education. The findings suggest a fruitful area of work of primary importance

from the health and safety point of view.

In his report Dr. Cureton explains that "The medical and public health reports of the Metropolitan Life Insurance Company and the Medical Division of Selective Service do not indicate the extent of unfitness of young men in motor fitness, but deal with the more general health aspects involving teeth, eyes, heart, ears, feet, lungs, hernia, musculoskeletal defects, and venereal diseases..." He points out that in the Navy rejections have averaged 54.9 per cent and in the Army about 50 per cent, and says that this has been pointed out as constituting a problem of national concern and importance and should call for immediate investigation and a prompt remedy. "However," Dr. Cureton declares, "there is another side to the picture which is overlooked in these medical reports but which is of primary importance to the immediate needs of the

armed forces. This is the state of young men in the dynamic aspects of motor fitness. . .

"Physical ability involving balance, flexibility, agility, strength, power, and endurance in a variety of performances sums up to motor fitness. A bad gap or blind area of development in any of these aspects will result in physical inefficiency in a large number of related performances. Motor fitness emphasizes the more generalized gross and funda-mental physical abilities which are dominated by development of the kinesthetic sense [by which muscular motion, weight, position, etc., are perceived, muscular energy, and suppleness of the tissues and joints, including the aspects which are basically involved in athletic or work skills with the big muscles of the body rather than the finer or low energy precision skills. . . . .

"Balance represents neuromuscular control paral-leling the development of the kinesthetic sense in acts of sitting, skating, riding, tumbling, walking logs or fences, skiing, dancing, and a host of everyday skills. Many people are handicapped because they fall and get hurt at the slightest provocation, slip on a rug, slip in the shower or in the pool or tub, or when they dismount from a moving vehicle. The greatest number of serious accidents are due to falls involving poor awareness of unsteadiness or lack of compensating control. Many adults cannot ride a bicycle, skate, swim, or ski. They are unsteady in shooting or fall easily from moving vehicles. Some do not readjust quickly to experiences in which the body is turned or revolved. Balance in this sense is educable, it can be learned by gradual education of the kinesthetic sense in a variety of balance stunts.

"The more natural and important these are the better, but good preliminary training is associated wi

. ility to move easily in the full range of joint movements, to tuck up tightly, to bend easily at the waist, to twist the spine easily, to point the toes fully and to breathe deeply and fully without much extra effort. . . .

"Agility emphasizes the capacity for fast reaction in controlled nimble movements, 'rabbit-like' in action, and to move quickly, dexterously, and easily. . . . Strength emphasizes the capacity of the hands, legs, or trunk to exert great force. . . . Power emphasizes the capacity to release great explosive force to sudden violent efforts. . . . . . Endurance is capacity for continuous exertion, involving in the first minute or two severe depletion of the oxygen reserve and the development of oxygen

debt with severe distress...."

Presenting an analysis of the motor fitness of 2,628 young men entering into the University of Illinois in September, 1942, Dr. Cureton says that they were fresh from high schools of Illinois and nearby states. The results were startling because among the 35.84 per cent who failed to pass the test the preparties of failures in fourteen basic test the proportion of failures in fourteen basic tests is so high "that concern should be manifested for the physical and health future of the men. For instance, 79 per cent could not lift the legs from the floor twenty times while lying on the back and then do twenty sit ups in succession. This standard is not very high, because a fit man can do as many as one hundred leg lifts and two hundred to five hundred sit ups. Some 78.8 per cent could not chin themselves ten times in succession, and 76.1 per cent could not jog a mile in seven minutes, a very

mediocre performance for any one who has the ability to run the distance...."

The findings in swimming ability were also significant. Of 2,557 who responded to a swimming

questionnaire, 679 men, or 26.55 per cent, said they could not swim at all, 40.13 per cent said they could swim 75 feet but not as much as 100 yards, and only 12.40 per cent stated that they were lifesavers.

#### LIBERTY SHIP NAMED FOR DR. TRASK

Dr. James D. Trask, one of America's most famous fighters in the war against infantile paralysis, was posthumously honored early last month when a Liberty ship named in his honor was launched at the Bethlehem-Fairfield shipyards in Baltimore.

As a salute to the late scientist and his colleagues who are carrying on polio research work through grants from The National Foundation for Infantile Paralysis in colleges, universities, and laboratories throughout the country, the National Foundation suggested the naming of the ship in honor of Dr. Trask. The ship was christened by his widow, with prominent scientists from Yale University and Johns Hopkins present at the launching ceremonies.

Dr. Trask, who died in Chicago on May 24, 1942, while working for an Army Medical Commission under an appointment as consultant to the Secretary of War, became internationally known for his work in infantile paralysis, a large part of it done with his close associate, Dr. John R. Paul of Yale University. The two men, who helped found the Yale Poliomyelitis Commission in 1931 after an epidemic of infantile paralysis swept Connecticut, made an outstanding team in the study of the disease.

In recognition of their work, Drs. Trask and Paul

received the first grant made by the Committee on Virus Research of the National Foundation after it was organized in 1938.

Together Drs. Trask and Paul published many papers on the disease and they were signally honored a month before Dr. Trask's death when they were awarded the John Phillips Memorial Medal at a meeting of the American College of Physicians.

Born in Astoria, New York, on August 21, 1890, Dr. Trask was graduated from the Cornell University Medical College and interned at Bellevue Hospital. A veteran of World War I, he served on the staff of the Rockefeller Institute for Medical Research, New York, from 1919 to 1921, when he joined the faculty of the Yale University School of Medicine as an instructor in medicine. In 1925 he was made an assistant professor of medicine and in 1927 an associate professor of pediatrics, retaining that position until his death. During the last month of his life he was working in Army posts in the Chicago area on problems of hemolytic streptococcus infection as a member of the Commission on Hemolytic Streptococcal Infections of the Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army.

## NATIONAL FOUNDATION FOR INFANTILE PARALYSIS ISSUES FIFTH ANNUAL REPORT

On April 11, Basil O'Connor, president of the National Foundation for Infantile Paralysis, made public the Foundation's fifth annual report. A section of the report deals with the Kenny method and shows that since Miss Kenny's arrival in this country in 1940 over \$500,000 has been spent in testing the method and training doctors, nurses, and technicians in the technic.

The Foundation established Miss Kenny at the University of Minnesota, a center at which more than 900 doctors, nurses, and physical therapy technical management of the control of the con

nicians have been trained in the method.

Other centers of instruction in the modern treatment of poliomyelitis, including the Kenny method, have been opened at Stanford University, School of Health, California; Childrens' Hospital Society, Los Angeles, California; The Georgia Warm Springs Foundation Graduate School of Physical Therapy; New York University School of Education, New York

City; University of Pennsylvania Graduate School of Medicine, Philadelphia, Pennsylvania; and the D. T. Watson School of Physiotherapy in Leetsdale, Pennsylvania.

The report also shows that during the fiscal year the National Foundation made grants and appropriations in five main categories: virus research, aftereffects research, education, medical publications,

and epidemics and public health.

Mr. O'Connor recently made an intensive five weeks' tour of nine southern states, conferring with public officials, officers of the Army and Navy, and medical and health authorities, and addressing a series of meetings attended by officers and personnel of branches of the National Foundation.

The purpose of the trip was to bring before the public the role played by the National Foundation in the fight against infantile

paralysis.

## MORE PHYSICAL THERAPY EQUIPMENT NOW AVAILABLE

According to a release from the Office of War Information, restrictions on the manufacture and sale of physical therapy equipment were eased on April 7 by the War Production Board.

Medical practitioners and hospitals may now buy certain types of equipment that formerly were manufactured only for the armed services and lendlease, and medical practitioners may also buy other types formerly restricted to these groups and to hospitals, WPB announced. In addition, three types of physical therapy equipment, generally approved by the medical profession for home use, may now be sold to the public on prescription or order of a licensed medical practitioner.

## Honor Roll

# Medical Society of the State of New York

## Member Physicians in the Armed Forces

## Supplementary List

The following list is the twentieth supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, April 15, June 1, July 1, August 1, September 1, October 15, November 15, December 15, 1943, January 15, February 1, February 15, March 1, May 1, and May 15, 1944, issues.—Editor

B

Benfield, R. (Capt.)
Hoff Gen. Hosp., Santa Barbara,
Calif. Calif.
Bernstein, D. (Maj.)
Greenway Station, Tucson, Ariz.
Bourgeois, G. A. (Capt.)
1303 York Ave., New York 21, N.Y.
Bryan, F. A. (Lt.)
3220 Elmwood Ave., Rochester,
N.Y.

Elias, G. 865 West End Ave., New York 25, N.Y.

Gennis, J. 161 E. 91 St., New York 28, N.Y. Gottesman, J. L. (Capt.) Station Hospital, Ft. Monmouth,

Hauben, R. S. (Lt.) A.P.O. 9921, c/o P.M., New York 1, N.Y.

Hermayer, S. 104 E. 40 St., New York 16, N.Y., c/o Dr. O. C. Risch Hunter, F. R. Mamaroneck, N.Y.

Ţ

Igel, L.
4520 12 Ave., Brooklyn 19, N.Y.
Italiener, H. D.
1225 Park Ave., New York 28, N.Y.

Jameson, J. W. (Capt.) Carlisle Barracks, Pa.

Kaplan, W. (Capt.) O'Reilly Gen. Hosp., Springfield, Mo. Kistin, A. D. 2630 Ocean Ave., Brooklyn 29, N.Y.

L

Leon, A. Z. (Lt.) c/o Dr. Pool, 99 Central Park W., New York, N.Y. Lewis, W. R. 1923 18 St., Niagara Falls, N.Y.

Schwartz, M. 1465 Broadway, New York 18, N.Y. Sherman, J. (Capt.) 3 Butler Ave., Buffalo, N.Y. Straus, E.
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W

Wolf, B. S. 1165 Park Ave., New York 28, N.Y.

Zimmer, E. (Lt.) Carlisle Barracks, Pa.

### COMPARATIVE VALUES

We Americans, with our mixed racial strains, our varied hereditary characteristics drawn from many lands and many ethnologic types, have attained at least one common factor—acquired, perhaps, from an environment that has been overly generous to us. We are generous to others, particularly if a call is made in a way to appeal to our open, warm-hearted, somewhat erratic and at times exceedingly sentimental emotions. If anyone tries to take what belongs to us, we fight at the drop of a hat; but if the emotional floodgates are opened, we give it away. This characteristic is simply illustrated by the old story of the tough character and the flower girl: "Don't cry, little girl. I'll buy your -- violets

The journalistic gentry learned long ago to pluck the pulsing heartstrings of their public. Crime may go unpunished and injustice may pile unnoted upon injustice, but let son e columnist mention the fact that a cripple needs a wheel chair or a veteran requires a wooden leg, and the checks float down like a kindly Christmas snowstorm. The need must be specific and emotionally presented, the beneficiary must be an individual with a personality of sorts, but the response is hundredfold, if it is only a new wig that is requested.

Publicity (or propaganda, if you will) is one of the most powerful instruments that we possess, and a great trust-to use it well and wisely-is put into the hands of those who guide it.

We have seen recently an example of its effectiveness, regardless of how wisely or unwisely it was in this case directed, or whether it was initiated in the best interests of the public. A child suffering from an admittedly incurable chronic nephritis (presumably nephrosis) has had life maintained, or at least has been treated, by the administration of large quantities of blood plasma, the fluid for lack of which many an American soldier may be doomed to die this summer unless the American public is reawakened to its duty. A Boston newspaper, taking up the cause of the child, has obtained enough plasma from local donors to guarantee, it is said, some prolongation of life for the patient.

If journalism will now turn its considerable powers toward obtaining enough blood donors for the Red Cross to make up the deficit of plasma that threatens the effective treatment of our wounded soldiers and sailors, we shall congratulate it most wholeheartedly on the gesture it has made in behalf of the child.

Editorial, New England J. M.

1254



# RATIONING DOES NOT CHANGE Mutritional Needs

As food availability decreases through increased ration control, many persons may be required to make drastic dietary adjustments to maintain their former health and vigor. These changes will be especially demanded of workers in essential and other industries whose energy expenditure is greater today than ever before. Regardless of curtailed food supplies, nutritional needs perforce remain unchanged, hence new means for their satisfaction must be employed.

Ovaltine provides an excellent answer to the problem of satisfying metabolic requirements in the face of more stringent rationing and food shortages. It provides the nutrients concerned with well-being and especially those whose lack is most likely to occur under food rationing. Three glassfuls of this delicious food drink may well raise the average diet to nutritional adequacy. Ovaltine is equally appealing as a mealtime beverage and as a between-meal snack.

THE WANDER CO., 360 N. Michigan Ave., Chicago 1, Illinois



# Ovaltine

#### Three daily servings (1½ oz.) of Ovaltine provide:

	Dry Ovaltine	Ovaltine with milk*		Dry Ovaltine	Ovaltine with milk*
PROTEIN	60 Gm.	31.2 Gm.	VITAMIN A	1500 I.U.	2953 I.U.
CARBOHYDRATE	30.0 Gm.	62.43 Gm.	VITAMIN D	405 I.U.	480 I.U.
FAT	2.8 Gm.	29.34 GmL	THIAMINE	.9 mg.	1.296 mg.
CALCIUM	.25 Gm.	1.104 Gm.	RIBOFLAVIN .	.25 mg.	1.278 mg.
PHOSPHORUS.	.25 Gm.	.903 Gm.	NIACIN	3.0 mg.	50 mg.
IRON	10.5 mg.	11.94 mg.	COPPER	5 ma	E
<ul> <li>Each serving</li> </ul>	made with	8 oz. milk; ba	sed on average repo	rted values	for milk.

# Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the Journal.

The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood) Place, Syracuse); George Baehr, M.D., and Charles D. Post, M.D.

## "Penicillin Therapy"

A SINGLE lecture entitled "Penicillin Therapy" was given before the Broome County Medical Society on May 16, 1944, in the auditorium of the Binghamton City Hospital, Binghamton.

The speaker was Dr. James E. McCormack, in-

structor in medicine at New York University Col-

lege of Medicine, New York City.

This instruction is provided by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

## Change in Sullivan County Series

R. RALPH STILLMAN will be unable to speak at the meeting of the Sullivan County society on June 14 at the Workmen's Circle Sanatorium as announced in the May 15 issue of the Journal.

His place will be taken by Dr. James E. McCormack, instructor in medicine at New York University College of Medicine, who will speak on "Penicillin Therapy."

## REPORT SHOWS PROGRESS IN CAMPAIGN TO PROTECT EYES

Protection of eyesight in industry and prevention of blindness from glaucoma, a disease which usually results in complete loss of sight unless treated by an eye physician, received special emphasis last year in the program of the National Society for the Prevention of Blindness, according to the annual report of its activities, made public by Mrs. Eleanor Brown Merrill, Executive Director.

"The war naturally tends to bring into sharp focus those activities which tie up with the war effort. the report explains, "but the continuous needs must

Some of these needs are: the restoration of sight, where possible; the promotion of educational facilities for children whose eye conditions make it impossible for them to use ordinary school equipment, as well as improving the eye hygiene conditions in schools, offices, factories, and homes; provision of information to the public and to professional groups such as nurses, teachers, medical social workers, safety engineers; and the early detection of eye diseases and conditions which may result in loss of vision."

In a preface reviewing the beginnings of the organized movement for sight conservation, Mason H. Bigelow, President of the Society, recalls that "thirty-five years ago, a few pioneers decided to in-augurate a program to assure good eyes for tomor-row, and the National Society for the Prevention of Blindness is the agency which those pioneers de-

signed to effect their program.
"At that time," Mr. Bigelow points out, "more than 25 per cent of the children in schools for the blind were there because of one disease alone— ophthalmia neonatorum; today the number of children blind from that cause has been reduced by

75 per cent.
Then, there was not one sight-saving class in the United States; today there are 629 classes for children whose eyesight is so seriously defective that they cannot receive an education in the regular classrooms. Then, industry had only begun to use protective devices for eye safety; today such

measures are preventing thousands of eye injuries at

"Despite notable achievements, however, much remains to be done. The increased hazards in industry due to the speedup for war production and the employment of inexperienced workers undoubtedly will be reflected by a higher toll of eye accidents. Among the war casualties already returning are many who have lost an eye or have suffered other serious eye injury. The National Society for the Prevention of Blindness must seek to lessen the tragedy of these young men by planning for their rehabilitation. A program must be put into effect which will provide for the restoration of eyesight where that is possible, and for planning working careers for those who return with visual handicaps which cannot be corrected. Government agencies charged with these responsibilities are already drawing on the counsel of the Society.

"To meet the demands of today so that we can save eyes for tomorrow, this society needs more than ever the continued support of its 26,000 members and donors, as well as of the thousands of professional and lay workers who are engaged in the many aspects of sight conservation."

The Society assisted last year in the establishment of new state programs or the development of existing programs for prevention of blindness in Arkansas, California, Delaware, Florida, Maryland, Minnesota, Missouri, New Jersey, Pennsylvania, Rhode Island, West Virginia; and in Washington, D.C., Cannda, and Hawaii. Organizations engaged in similar work in Mexico and Central and South America were also aided.

Through the press, radio, and motion pictures, and through distribution of pamphlets and lectures by staff members, the Society's health education ma-terial reached the general public and numerous professional groups. More than 300,000 copies of

various pamphlets were distributed.

The Society's income in 1943 was \$169,454 and its expenditures amounted to \$173,526, necessitating the use of \$4,072 from the Reserve Fund.



# Procaine Hydrochloride and Epinephrine

The combination of the prompt and powerful local anesthetic action of procaine hydrochloride with epinephrine is very effective. With CHEPLIN'S PRO-CAINE HYDROCHLORIDE and

heprompt anesthetic thesia is prolonged through reacted absorption of the anesthetic. It also causes blanching of the operative area, thus giving the surgeon a clear field. Literature on request.





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## Medical News

# Annual Meeting of Laryngological, Rhinological, and Otological Society

THE forty-ninth annual meeting of the American Laryngological, Rhinological, and Otological Society, Inc., is to be held in the Waldorf-Astoria Hotel in New York City on June 9 and 10.

The scientific program on June 9 will consist of the following lectures: "Experiences in a War Zone Since the Blitz," by Dr. Forrest J. Pinkerton, of Honolulu, Hawaii; "The Otoliths and the Part They Play in Man," by Dr. W. J. McNally, of Montreal, Canada, with discussion by Dr. Oscar V. Monfreal, Canada, with discussion by Dr. Uscar v. Batson, of Philadelphia; "Diabetic Gangrene Involving the Sinuses," by Dr. Ben R. Dysart, of Pasadena, California, with discussion by Dr. Samuel R. Skillern, Jr., of Philadelphia, and Dr. John J. Shea, of Memphis, Tennessee; "Disturbances of the Functions of the Salivary Glands," by Dr. A. C. Functions of the Salivary Glands, by Dr. A. C. Salivary Glands, "By Dr. A. C. Salivary Glands," by Dr. A. C. Salivary Glands, "By Dr. A. C. Salivary Glands," by Dr. A. C. Salivary Glands, "By Dr. A. C. Salivary Glands," by Dr. A. C. Salivary Glands, "By Dr. A. C. Salivary Glands," by Dr. A. C. Salivary Glands, "By Dr. A. C. Salivary Glands," by Dr. Salivary Glands, "By Dr. A. C. Salivary Glands," by Dr. Salivary Glands, "By Dr. Salivary Glands," by Furstenberg, of Ann Arbor, Michigan, with discussion by Dr. Thomas E. Carmody, of Denver, Colorado, and Dr. Emil F. Tholen, of Los Angeles; "The Comparison of the Hearing Improvement Following The Fenestration Operation and the Hearing Improvement Obtained with a Hearing Aid," by Dr. George E. Shambaugh, Jr., of Chicago, with discussion by Dr. Kenneth M. Day, of Pittsburgh, and Dr. Marvin F. Jones, of New York City; "The Aging Ear" by Dr. Edmund Prince Fowler, Sr., of

New York City, with discussion by Dr. Raymond C. Truex, of New York City.

The following lectures will make up the scientific program on June 10: "Otolaryngology on the High Seas," by Capt. Harry S. Schenck, (UUN), of Oceanside, California; "Audiometry in the Diagnosis and Treatment of Deafness in Children," by Dr. Walter Hughson, of Abington, Pennsylvania, with discussion by Dr. Harold Westlake, of Harrisburg, Pennsylvania, and Dr. C. Stewart Nash, of Rochester; "Traumatisms of the Frontal Sinuses," by Dr. Ralph A. Fenton, of Portland, Oregon, with discussion by Dr. Harris P. Mosher, of Marblehead, Massachusetts, and Dr. Robert F. Ridpath, of Philadelphia; "Cystadenoma of the Larynx—Report of Four Cases," by Dr. Frederick A. Figi, of Price of Minnesota with discussion by Dr. Report of Four Cases," by Dr. Frederick A. Figi, of Rochester, Minnesota, with discussion by Dr. Charles J. Imperatori, of New York City, and Dr. Gabriel Tucker, of Philadelphia; "The Pre-Epiglottic Space, Its Relation to Carcinoma of the Epiglottis," by Dr. Louis H. Clerf, of Philadelphia, with discussion by Dr. Frederick A. Figi and Dr. Henry B. Orton, of Newark, New Jersey.

A motion picture entitled "The Mode of Action of the Cricothyroid Muscle" will be shown by Dr.

the Cricothyroid Muscle" will be shown by Dr. Samuel Iglauer, of Cincinnati, Ohio, on June 10.

## First "Eye Bank" in Nation Opens at New York Hospital

THE nation's first "eye bank" for the collection and preservation of healthy human corneas, which surgeons can transplant to other patients with opaque corneas, restoring their sight, was founded on May 8 at New York Hospital.

Nineteen other hospitals in New York City and Westchester County will cooperate in supplying the bank with eyes and drawing from it. The National Red Cross Motor Corps will provide rush trans-portation to the bank for the delicate and precious

tissues.

A joint announcement from Stanley Resor, president of the Manhattan Eye and Ear Hospital, and Langdon P. Marvin, president of New York Hospital, predicted that the new eye bank may make it possible for sight to be restored to thousands of blind persons who are waiting to have the operation performed.

It was emphasized by both the hospital and the Medical Information Bureau of the New York Academy of Medicine that the operation, substituting healthy corneas for damaged ones, can restore sight in only one type of blindness—that caused solely by opacity of the cornea when the rest of the

eye and optic nerves are normal.

Corneas for transplanting are mostly obtained when it is necessary to remove an injured or dis-eased eye from a living patient. In relatively few cases a donor has submitted to an operation merely to supply a corned to another person, but these donations have invariably been from eyes which were sightless for reasons other than cornea defects.

Corneas from dead persons can also be used if removed within four hours after death. Such use is drastically limited in New York State, however, because the law requires the permission of the next of kin of the deceased, even though the deceased may have willed his eyes for such a use. By the time legal formalities are met it is usually too late to remove the eye.

Under the eye-bank plan the cooperating hospitals and their surgeons will notify the bank when an eye with a healthy cornea becomes available. The bank will dispatch the Red Cross Motor Corps

after it immediately.

Other hospitals in New York City cooperating in the bank project are the Beekman Street Hospital, Beth Israel Hospital, Bronx Hospital, Jewish Memorial Hospital, Lenox Hill Hospital, New York Eye and Ear Infirmary, New York Infirmary for Women and Children, Flower and Fifth Avenue Hospital, St. Francis Hospital, Sydenham Hospital, St. Vincent's Hospital, Beth David Hospital, Long Island College Hospital and Wyckoff Heights Hospital, both of Brooklyn, and the following Westchester County hospitals: Yonkers General Hospital, Grasslands Hospital in Valhalla, Mount Vernon Hospital, Tarrytown Hospital Association, and Dobbs Ferry Hospital.

## Army Medical Department Establishes Civil Public Health Division

MAJ. Gen. Norman T. Kirk, the Surgeon General of the Army, has announced the establishment of the Civil Public Health Division as a new organization with its principal function the formulation of policies and the development of plans for

public health programs in occupied and liberated territories during the military phase of future operations.

The division, part of the Preventive Medicine



For countless arthritics, regardless of the advancement of their affliction, treatment with massive dosage vitamin D has led to profound improvement, from dependable arrestment of the arthritic process to complete functional rehabilitation. Diactol is vitamin D<sub>2</sub> (calciferol), produced by selective irradiation of ergosterol, and is relatively free from intermediate irradiation products. In the recommended "individualized" dosage it is notably free from side actions. Administration over an adequate length of time, in a high percentage of cases, results in regression of periarticular soft tissue involvements, improves joint mobility, brings a new sense of well-being. The characteristic pain yields early, rendering the patient comfortable and more cooperative.

Physicians are invited to send for literature

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35 YEARS OF ETHICAL SERVICE

MICHIGAN

Diactol, packaged in bottles of 100 s.g. capsules, is available on prescription through all pharmacies. It is notable for its reasonable price.





# [Continued from page 1258]

Service under Brig. Gen. James S. Simmons, will be under the immediate direction of Col. Thomas B. Turner, (MC), who has just returned from an extensive tour of the European and Mediterranean theaters of operations, where such programs are now functioning or are in the planning stage.

The program already under way will integrate the public health activities of the Army overseas with those of other agencies in this field, including the U.S. Typhus Commission, the Navy, the U.S. Public Health Service, the United Nations Relief and Rehabilitation Administration, and other

national and international health organizations.

The Allied armies will be called on to assume a measure of responsibility for civilian public health in many areas, entailing supervision of or liaison with local public health officials and the provision of certain necessary medical supplies.

To accomplish this objective it will be necessary to commission from civil life a number of officers experienced in public health administration and in specialties such as nutrition, maternal and child health, public health engineering, and laboratory technics.

Men who have had both general and special training in one or another of these special fields are being sought for such assignments in the Far Eastern area. They should not be over 50 years of age and should be physically qualified to perform at least limited service duties overseas. Previous military experience and knowledge of foreign languages is desirable but not essential.

The men selected will undergo a course of training at the School of Military Government, Charlottes-ville, Virginia, and thereafter in one of a number of civilian universities not yet designated. Instruction will include the theory and general principles of military government and liaison, and the language and background of certain Far Eastern areas. In addition, provision will be made for training men in special phases of public health and certain medical specialties.

Further information may be obtained by addressing the Surgeon General, U.S. Army, Washington 25, D.C., attention of the Civil Public Health

Division.—J.A.M.A., April 29

# County News

# Albany County

The monthly meeting of the county society was held in the auditorium of the Albany College of

Pharmacy on May 17 at 8:30 P.M.

The business session was followed by a lecture: "Experience with Tropical Diseases from the Various Theaters of the Present War," by Dr. Harold W. Brown, professor of parasitology at the College of Physicians and Surgeons of Columbia University, New York City. The discussion included practical points in the diagnosis and treatment of several tropical diseases which are being entered to the several tropical diseases which are the several diseases which are countered by our armed forces. Most of the time was devoted to malaria and filariasis, with a brief mention of the typhus group, hookworm, and dysenteries. The possibility of the introduction and establishment of these diseases in the United States through returning infected soldiers was considered.

Discussion of Dr. Brown's paper was opened by Drs. Robert Korns, Charles A. Perry, and William

Kaufmann.

A half century of active medical practice in the city of Cohoes was observed by Dr. John F. Mc-Garrahan on April 18, the fiftieth anniversary of his graduation from the Albany Medical College.

Chemung County

Dr. Charles H. Voorhees has opened an office for the practice of medicine and surgery in Elmira. He represents the fourth generation of doctors in his

Dr. Voorhees was graduated from Cornell University in 1939 with an A.B. degree and from the University of Buffalo School of Medicine in 1943. He recently completed his internship at the Arnot-Ogden Memorial Hospital in Elmira.\*

# Clinton County

The semiannual meeting of the county society was held on Tuesday, May 16, at the Cumberland House, Plattsburgh. The business meeting was

called at 5:30 P.M., and at 6:30 dinner was served. Asterisk indicates that item is from a local newspaper.

Following the dinner the society was addressed by Capt. T. M. Downs, (MC), USNR, senior medical officer at Camp Macdonough. The subject of the address was "Doctor in Uniform." Downs spoke of his experiences while in active service, which included duty at Pearl Harbor during the attack on December 7, 1941.—T. Aveny Rogers, M.D., Secretary

### Cortland County

Dr. Harold J. Stewart, associate professor of clinical medicine at Cornell University College of Medicine in New York City, lectured on April 21 to members of the Cortland County Medical Society on the electrocardiograph in the treatment of heart

disease. Aside from a general discussion of the process Dr. Stewart cited the uses and limitations of the method. Supplementing his lecture, Dr. Stewart showed several slides of heart tracing. The lecture was arranged by the Council Committee on Public Health and Education of the Medical Society of State of New York.

# Dutchess County

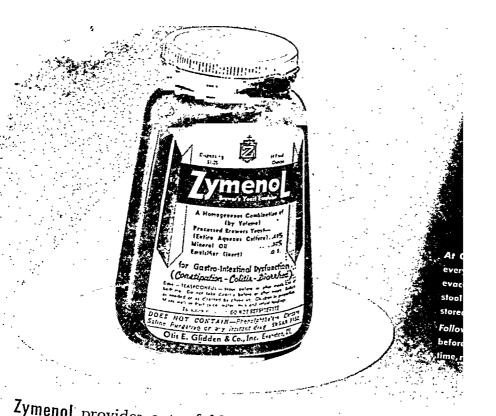
Three Poughkeepsie business organizations have subscribed to the Medical Expense Fund of New York, Inc., benefiting a total of approximately 210 employes, Dr. F. E. Elliott, Brooklyn, secretary-treasurer of the fund, disclosed.

Firms which have subscribed to the fund for general medical care in treatment of injury or illness, in cases not covered by compensation insurance, are the James L. Taylor Manufacturing Company, the First National Bank, and Smith Brothers, Inc.\*

### Franklin County

The Franklin County Tuberculosis and Health Association's annual luncheon meeting was held at the Franklin Hotel in Malone on April 26.

Dr. Herbert H. Bauckus, of Buffalo, President of the Medical Society of the State of New York, was the main speaker.\*



Zymenol provides a twofold natural approach to the two

NORMAL INTESTINAL CONTENT REESTABLISHED ... through brewers yeast enzymatic action\*

NORMAL INTESTINAL MOTILITY RESTORED ... with complete natural vitamin b complex\*

This twofold natural therapy assures normal bowel function without constipating astringents and absorptives, artificial bulkage

Write For FREE Clinical Size

\*ZymenoL contains Pure Aqueous Brewers Yeast (no live cells)

[Continued from page 1260]

### Kings County

A stated meeting of the county society was held Tuesday evening, May 16, in MacNaughton Audi-

Two addresses comprised the scientific program Dr John M Pearce of Brooklyn, associate professor of pathology at Long Island College of Medicine, spoke on "The Cellular Response to Virus Infection" The other speaker was Dr John R DiPalma, also of Brooklyn, a resident in Medicine, Long Island College of Medicine, Kings County Hospital Division His subject was "The Circulation of the Skin in the Shock Syndrome"

The spring meeting and dinner of the Associated Physicians of Long Island will be held on Tuesday, June 20, at the Wheatley Hills Golf Club, East Williston.

The scientific program will be held at 3 00 PM at the Club House It will comprise four short papers on various subjects by Island members, discussed by Brooklyn members There will be a brief business session at 5:30 p m

The dinner will be at the Club at 6 30 P.M.

### Nassau County

Hempstead, Long Island, was reported on April 24 to have become the first community in the United States to insure all its employees against medical Mayor Herbert Mirschel has stated that the plan is already paying dividends in fewer work days lost and a sharpening of efficiency in all municipal departments

The plan subscribed to is the Medical Expense

Fund of New York.\*

### New York County

The monthly meeting of the county society was held May 22 at the New York Academy of Medicine at 8.15 PM

J. Beeckman Delatour spoke on the program of the Committee for Recruitment and Education of Practical Nurses of the Practical Nurses of New York, Inc., and three speakers presented a sym-

posium on neuropsychiatric problems

posium on neuropsychiatric problems

The symposium speakers and the titles of their addresses were "Neuropsychiatric Problems in Ground Forces," by Col William C Porter, (MC), Army Service Forces, Mason General Hospital, Brentwood, New York; "Neuropsychiatric Aviation Problems," by Col Walter S Jensen, (MC), Deputy Air Surgeon, Headquarters, Army Air Forces, Washington, D.C., and "Neuropsychiatric Problems of the Veterans Administration, by Martin Cooley, Veterans Administration. Washing-Martin Cooley, Veterans Administration, Washington, DC Discussion was by Dr Foster Kennedy

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The resignations of Dr John D. Lyttle as assistant clinical professor of pediatrics, effective May 1, and Dr Dudley J Morton as associate professor of anatomy, effective June 30, were accepted by the

board of trustees April 24

# Oneida County

The Utica Observer-Dispatch of April 2 carried the following news item about a refugee doctor

From East Prussia, by way of Italy and England, pursuing her medical education en route Dr Ursula K Arnsdorff has come to Utica to be resident physician at the General Honnital

Political events, more than time and space, have cut her off from Konigsberg, her native city, but Dr Arnsdorff does not look back regretfully My home," she says, is where I have good work and friends." Here she is finding both

The variety of jobs that the General Hospital physicians encounter constitutes 'good' work. Diseases, drunka babies," the doctor lists them 'Two babies has week—a black one and a white one "She has met no new situations in this variety, having worked in many hospitals, before I have not found so many things in one place "

Dr Arnsdorff came to the Utica institution from the Lingston Avenue Hospital, Brooklyn She had specialized in communicable diseases as resident for fifteen months Previously she had served a year s rotating internship in the Lutheran Hospital, Brooklyn She armed in the United States three and one-half years ago and in 1942 was licensed

to practice in New York State

Dr Arnsdorff left home alone in 1933, after Hitler's rise to power, and went to Italy to study She was graduated from the University of Turin Medical School in 1937, then She was graduated worked in the university hospital and in one near Milan Meanwhile, her parents had got out of Germany and were living in London, where they are now She went to London for another eight months of hospital training, later following her sister to Brooklyn

She had then to support herself and also to study for the state board examinations, and found it hard to get a job She discovered how inadequate her school English was, but the least of her problems was learning our language months among Italians she had picked up more of their language than she had learned of the French in ten years in a German school, she recalls, and she took to English as

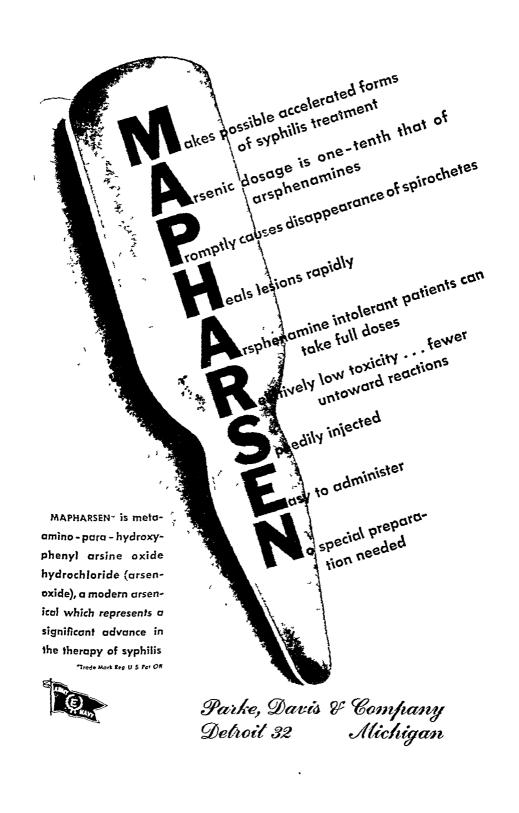
easily when she began working with Americans

Dr Ernest J Weiss, of Rome, has opened an office in Oriskany He is the first physician to have an office in Oriskany since the death of Di B P Allen several months ago \*

# Onondaga County

Organization of a second Army hospital unit by Syracuse University's College of Medicine was revealed recently when the Second Service Command released an announcement that personnel of the unit had been called to active duty for one week, April 9-15, at Halloran General Hospital, Staten Island

Fifteen Syracuse doctors are included in the unit, which is designated as Emergency Base Hospital Unit No 11 It was organized in the fall of 1942 at the request of Dr Thomas Parran, Surgeon Gen-eral of the US Public Health Service Dr. Leon E Sutton, with the rank of heuten int colonel, 14



[Continued from page 1260]

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The variety of jobs that the General Hospital physicians encounter constitutes "good" work. "Diseases, drunks, babies," the doctor lists them. "Two babies last week—a black one and a white one." She has met no new situations in this variety, having worked in many hospitals, "but before I have not found so many things in one place."

Dr. Arnsdorff came to the Utica institution from the Kingston Avenue Hospital, Brooklyn. She had specialized in communicable diseases as resident for fifteen months. Previously she had served a year's rotating internship in the Lutheran Hospital, Brooklyn. She arrived in the United States three and one-half years ago and in 1942 was licensed to practice in New York State.

Dr. Arnsdorff left home alone in 1933, after Hitler's rise to power, and went to Italy to study. She was graduated from the University of Turin Medical School in 1937, then worked in the university hospital and in one near Milan. Meanwhile, her parents had got out of Germany and were living in London, where they are now. She went to London for another eight months of hospital training, later following her sister to Brooklym.

She had then to support herself and also to study for the state board examinations, and found it hard to get a job. She discovered how inadequate her school English was, but the least of her problems was learning our language. In six months among Italians she had picked up more of their language than she had learned of the French in ten years in a German school, she recalls, and she took to English as easily when she began working with Americans.

Dr. Ernest J. Weiss, of Rome, has opened an office in Oriskany. He is the first physician to have an office in Oriskany since the death of Dr. B. P. Allen several months ago.\*

### Onondaga County

Organization of a second Army hospital unit by Syracuse University's College of Medicine was revealed recently when the Second Service Command released an announcement that personnel of the unit had been called to active duty for one week, April 9-15, at Halloran General Hospital, Staten Island.

Fifteen Syracuse doctors are included in the unit, which is designated as Emergency Base Hospital Unit No. 11. It was organized in the fall of 1942 at the request of Dr. Thomas Parran, Surgeon General of the U.S. Public Health Service. Dr. Leon E. Sutton, with the rank of licutenant colonel, is



uccessful management of high blood pressure calls for a regimen which is adjusted to individual requirements. Physical activity is generally curtailed and overwork is avoided. In certain circumstances special diets are prescribed and the use of stimulants is restricted.

These measures are often supplemented with the administration of Theominal. This combined vasodilator and sedative aids in reducing blood pressure to a more normal level. As a consequence hypertensive symptoms are relieved and the risk of complications is reduced.

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\*Luminal (trademark), Winthrop Chemical Company, Inc., brand of phenobarbital.



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### [Continued from page 1262]

director of the unit, and Dr. J. G. Fred Hiss, also a lieutenant colonel, is assistant director.

The unit is made up of specialists in various branches of medicine and surgery. Serving as majors are Drs. Gerald C. Cooney, Arthur N. Curtiss, Ernest J. Delmonico, Lawrence W. Ehegartner, Leo E. Gibson, Morris J. Lavine, Earl E. Mack, Roscoe D. Severance, R. H. Thomasmeyer, dental surgeon, and Dr. James R. Wilson. Captains are Drs. Robert D. Fairchild, James D. Norris, and John van Duvn.

Members of the unit are commissioned in the re-

serve of the U.S. Public Health Service.

The College of Medicine's first hospital unit, the 52d General Hospital, has been on overseas duty since January, 1943.\*

### **Oueens County**

A new protein acid which is said to be proving almost as valuable as blood plasma in prolonged disease and shock cases was described by Dr. Nicholas D. Tiscione, of Jamaica, at the monthly meeting of the Queens County Medical Society held on April 25.

Dr. Tiscione told his audience of 150 physicians that the new acid, though not interchangeable with blood plasma, is less expensive and, given the time

and facilities, may be used in its place.

Medical officers of the St. Albans Naval Hospital were guests at the meeting. They heard, in addition to Dr. Tiscione's address, talks on professional subjects by Dr. Morris S. Bender, of Jamaica, and Dr. Herbert C. Maier, of Manhattan. Dr. W. Guernsey Frey, Jr., of Forest Hills, president of the society, led the professional subjects which followed a discussion which were discussion which will be discussed as the discussion which will be discussed as the discussion which w led the evening discussion, which followed a dinner in the society building.\*

### Steuben County

The medical profession must prepare to deal with new infectious diseases brought back to America by servicemen returning from overseas, Dr. Stockton Kimball, of Buffalo, said on April 13 at the quarterly luncheon meeting of the Steuben County Medical Society.

Speaking on the topic "Malaria, the Dysenteries,

and Filariasis," the physician described the types of tropical diseases and their symptoms.

Dr. Kimball is a member of the faculty of the University of Buffalo and the staff of the Buffalo General Hospital. He has studied tropical diseases in Latin American countries.

Dr. E. H. Ober, of Painted Post, president of the society, presided and introduced Dr. Kimball.

The group discussed the Steuben County medical manual for the care of welfare cases. The society will cooperate in this project with County Welfare Commissioner Charles G. Burnett of Bath. Dr. Ober said.\*

# Warren County

Dr. Wallace Finne MacNaughton, of Fort Edward, has opened a Glens Falls office where he will maintain office hours and make appointments.

### Westchester County

The regular meeting of the county society was held at the Westchester Division of the New York Hospital, in White Plains, on May 16 at 8:30 P.M.

Dr. Joe Vincent Meigs, of Boston, spoke on "Earlier Diagnosis of Uterine Cancer."

A special feature was the second presentation of the James Ewing Award.

Westchester physicians have mobilized their services through the mental health committee of the Westchester Medical Society, to provide consulta-tion and treatment for discharged war veterans suf-fering from neuropsychiatric disability, and for selective service registrants rejected because of nervous disorders.

The society announced that it has organized a group of specialists in the psychiatric field, who have volunteered to consult with and treat veterans referred by the home service division of the Red Cross, and rejected selectees referred by draft boards.

Details of the plan have been worked out with the Westchester Red Cross Chapter and draft boards are to be informed of the program, initiated by Dr. Clarence O. Cheney, medical director of New York Hospital, Westchester Division, and chairman of the subcommittee on mental health of the society's public health committee.\*

# Deaths of New York State Physicians

Name Benjamin M. Domser Abraham J. Epstein Edward L. Frost Jacob Gutman Arthur Lester Robert C. Maxon James F. McCaw John H. Quayle Nelson G. Richmond Francis M. Shockley Warren S. Simmons	Age 67 58 79 67 48 35 80 69 87 54 77	Medical School Syracuse Univ. & Bell. Buffalo Cornell Breslau P. & S., N.Y. P. & S., N.Y. Cleveland Med. & Surg. Bellevue Med. Col. Kansas City P. & S., N.Y. L.I.C. Hosp.	Date of Death April 26 February 10 April 22 May 7 May 8 April 28 April 29 April 25 April 18 April 16 April 26 May 2 May 6	Residence Syracuse Bronx Buffalo Brooklyn Manhattan Schenectady Watertown Manhattan Fredonia Manhattan Brooklyn Brooklyn
Robert C. Maxon James F. McCaw John H. Quayle Nelson G. Richmond Francis M. Shockley	80 69 87 54 77	P. & S., N.Y. Cleveland Med. & Surg. Bellevue Med. Col. Kansas City P. & S., N.Y.	April 29 April 25 April 18 April 26 May 2	

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# Hospital News

# Hospital Group Plans October Convention

THE third war conference and the forty-sixth annual convention of the American Hospital Association will be staged October 2 to 6, inclusive, in Cleveland, Ohio, city of its founding in 1899.

Convention headquarters will be at the Statler Hotel, Cleveland, with exhibits arranged in the city's auditorium, where general sessions of the con-

vention will be conducted. Allied organizations meeting simultaneously will assemble at the Hotel Cleveland.

Adequate hotel accommodations to meet the demands of a normal convention crowd will be available, George Bugbee, Chicago, executive secretary of the association, announced.

# Civilian Hospitals' Aid Needed for War Veterans

ESPITE the great development of Army and Navy facilities throughout the country, hospitalization of war veterans will require the assistance of civilian hospitals, according to a statement by Dr. Donald C. Smelzer, Philadelphia, presidentelect of the American Hospital Association.

"There is and will be a dearth of hospital beds for the care of veterans," Dr. Smelzer said in discussing plans for this year's observance of National Hospital Day, May 12, to pay tribute to Florence Nightingale, celebrated nurse who did so much in the

Crimean war to relieve the sufferings of soldiers.
"While the Federal Government will pay the entire cost of services to war-disabled civilians, the amended Rehabilitation Act proposes utilization of existing hospital facilities financed by a Federal-

State matching plan for the physical rehabilitation of all civilians who are disabled by injury or disease and whose condition is static," Dr. Smelzer said. "There are said to be two million civilians awaiting rehabilitation," he said. "It is hoped," he added, "the said." "that every hospital will do all in its power to make available every possible bed, if and when asked to do so by the Veterans' Bureau."

"The obstacles of personnel shortages, rationing, and material allocation are being overcome by hospital administrators," Dr. Smelzer said, "in their attempt to continue to have available for the American public the best in hospital care. Overseas and in each community all components of the American hospital system are performing their tasks in a manner of which we may all be proud."

# New Nurse Unit for Military Hospitals

THE War Department announced on May 3 that full-time employment in military hospitals throughout the nation of certified graduates of volunteer nurse's aides classes sponsored by the American Red Cross has been authorized by Maj. Gen. Norman T. Kirk, Surgeon General, U.S.A. With uniforms and insignia of their own, this new

group will be known as Army Nurses' Aides. To qualify for appointment as such an aide, the applicant must have been certified as having done one hundred and fifty hours in the accredited American

Red Cross classes. It also is necessary to have indefinite leave of absence from the Volunteer Nurse's Aide Corps of the American Red Cross.

"The addition of these trained eivilian employees will help the over-all nursing situation," declared Col. Florence A. Blanchfield, superintendent of the Army Nurse Corps. "By assigning a quota of these aides to an officer of the Army Nurse Corps, we can be assured of competent care for our hospitalized soldiers without draining too many trained personnel from private institutions," she said.

Canning of vegetables and fruits at the county

home in Onondaga Hill was started six or seven years ago on a modest scale but of late years the project has provided these edibles for the home, the sanatorium, and the county penitentiary. All

vegetables are grown on the farms at the home. The work has been performed under difficulties, with much of it being done outdoors during the

height of thecanning season.\*

# Improvements

Dutchess County has a new Blood Bank which is located at Vassar Brothers Hospital in Poughkeep-sie and is directed by Dr. J. Spottiswood Taylor, pathologist at the Hospital. The blood and plasma are available for patients throughout the county.\*

Completion of decorating work on the third-floor, west wing, of University Hospital in Syracuse late in April made available to the community the latest type of x-ray equipment, and brought the hospital's x-ray facilities up to three rooms and a portable unit.

The new unit, a Picker 200-milliampere x-ray machine, was installed April 1.\*

According to the Syracuse Post-Standard of April 24, construction of a new cannery at the Onondaga County Hospital and farm has been started and enough materials have been obtained to assure its

completion in a few weeks.

A gift of \$10,000 to provide a modern operating room with complete new equipment and up-to-date accessories at the Ossining Hospital has been announced by Dr. Charles C. Sweet, chairman of a committee appointed to secure the funds for the room. The entire gift will be presented to the hospital

and to the community by Mrs. Lester Hotheimer, of Ossining, in memory of her son, Lester Hotheimer, Jr., Army lieutenant, who was killed in action last year while serving with the armed forces.\*

[Continued on page 1268]

board of the Mount Sinai Hospital and consulting otologist to the Hospital, a portrait of Dr. Friesner was presented on April 27 to the Board of Trustees for the permanent collection of the Hospital. The portrait, painted by Alpheaus P. Cole, was accepted for Mount Sinai by Waldemar Kops, acting president.

The portrait has been commissioned as a tribute to Dr. Friesner's twenty-four years of service as physician and teacher at the Mount Sinai Hospital, and to his pioneering work in establishing the relation of

otology to general medicine.

Last month their first shipments of penicillin were received by sixty-one hospitals in New York City designated as distributors under the new system of allocation to civilians.

Distribution, hitherto limited almost wholly to the armed services, is handled through the Office of Penicillin Distribution in Chicago, of which Dr.

John N. McDonnell is director.\*

In commemoration of the first anniversary of the arrival of the Mount Sinai Hospital unit in North Africa, on May 8 Waldemar Kops, acting president of the Hospital, cabled congratulations to the Commanding Officer of the Unit in the name of Mount Sinai's trustees and medical staff. Noting the completion of the first year of service abroad, the cable closes with the words: "We are proud of Mount Sinai overseas and the fine work you are doing."

Organized in 1940 and called to active duty in Sontal Mount Sinai overseas and the fine work you are doing."

Organized in 1940 and called to active duty in September, 1942, the Unit started its foreign duties in May, 1943. Lt. Col. Herman Lande is its Executive Officer and Maj. Ruth Chamberlain is Chief

winge"

Acceleration of enrollments in Associated Hospital Service, New York's Blue Cross Plan, continued in the first quarter of 1944, according to Louis H. Pink, president. Net increase for the period was 86,250 new members, almost 75 per cent of the yearly total of 113,424 reported for 1943. In the seventeen counties of lower New York State served by the plan, 1,528,801 persons are now protected by Blue Cross membership.

New York's was the second largest increase reported by all Blue Cross Plans in a quarter which set a new record also for total increase in the United States and Canada. The largest increase occurred in the Massachusetts plan, which is state-wide.

The public was asked on May 9 by Dr. Edward N. Bernecker, New York City's Commissioner of Hospitals, to contribute old radios and radio parts for use in the occupational therapy departments of the city hospitals. The Civilian Defense Volunteer Office will receive all contributions at its branch and local offices in the five boroughs.\*

# PENICILLIN IN PERU

Dr. Telemaco Battistini, director of the Peruvian National Institute of Hygiene, says that Peru was the first Latin American country to produce and use penicillin. The Peruvian scientist adds that the first experiments with penicillin were made at the Institute in August, 1942, and that by March, 1943, penicillin produced in Peru was being used in all the chief hospitals of Lima.—Release from the Office of the Coordinator of Inter-American Affairs



The torments of itching, burning eyes, blurred vision, uncontrollable sneezing and other ocular and nasal symptoms of hay fever usually respond quickly to the application of ESTIVIN.

One drop of Estivin in each eye, two or three times daily is generally sufficient to keep the average patient comfortable during the entire season. In more severe cases, additional applications whenever the symptoms recur will assure freedom from discomfort throughout the day.



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# [Continued from page 1266]

# At the Helm

Dr. Thomas Bruce Hart Anderson has assumed his duties as senior medical officer in charge of the U.S. Marine Hospital, Clifton, succeeding Dr. William Y. Hollingsworth, who was transferred earlier this month to the directorship of the Marine Hospital in New Orleans.

Dr. Anderson arrived on Staten Island from Seattle, Washington, where he had been in charge of that city's Marine Hospital for two years.\*

Dr. Willard H. Veeder, for thirty-eight years a member of the Rochester State Hospital staff, took up his new job as superintendent of Craig Colony for Epileptics at Sonyea on May 1 as the third superintendent of the fifty-year-old institution.

Dr. Veeder is a former president of the Medical Society of the County of Monroe and vice-president

of the Academy of Medicine.\*

# Newsy Notes

The following paragraphs are quoted from the

New York Herald Tribune of April 16:

"At Christopher Street in the heart of Greenwich Village, Waverly Place splits to embrace two sides of a triangular four-storied building erected 117 years ago, one of the oldest structures in the city still housing its original tenant, the Northern Dis-pensary of the City of New York. "Founded in 1827 to provide medical and surgical

relief to the worthy poor, this institution's doors

have not been closed for 117 years.

"In a tiny three-sided room on the ground floor prescriptions are filled from jars and bottles that would please the eyes of dealers in antique china and glass. All medicines are sold at cost. . . .

"From the beginning the dispensary has been supported entirely by contributions, except for \$500 received annually from the city. In 1838, however, the Common Council, perhaps overzealous in its effort to balance the city budget, voted to discontinue the allotment on the ground it no longer was needed. Diligent effort by the trustees and the public recognition of the splendid work accomplished resulted in two years in the city's restoring he annual allotment and increasing it to \$1,000. The balance sheets through the years show that this amount never has varied...

"The dispensary has served through five wars, and again the government has made demands upon staff members and the voluntary workers so that there is need for help with the clerical work as well as cash gifts to keep the organization functioning. . . '

An exhibition of stamps depicting nurses, hospitals, doctors, and medical scientists, loaned by four physician-philatelists, was held at Gimbel's Stamp Department in New York from May 8 through May 15, in honor of National Hospital Day, May 12. The four exhibitors were: Dr. Anna R. Young of

Bridgeport, Connecticut, Dr. Louis A. Sarrow, Far Rockaway, New York, Dr. J. C. Horan, New York City, and Dr. Otho C. Hudson, Hempstead, New

York.

The display, which filled a dozen large frames on Gimbel's ground floor, was arranged by the stamp department to cooperate with the city, state, and national hospital associations. It was suggested by John H. Olsen, chairman of the National Hospital Day committees of the Hospital Association of New York State, the Greater New York Hospital Association, and the Hospital Council of Brooklyn.

Mr. Olsen believes that such stamp exhibits, which he has been promoting throughout the country, will emphasize the worthiness of the proposal that the United States issue a stamp to honor

the nursing profession which has attained such great wartime importance.

In his will the late Daniel B. Freedman of Brant Lake and New York City bequeathed property in Warren County to the Montefiore Hospital for Chronic Diseases, New York.

'Announcement has been received that the Hospital for Joint Diseases in New York City invites the admission of patients with acute and chronic osteomyelitis for treatment with penicillin.

The Admitting Office of the Hospital will arrange for the admission of such patients. The telephone number is LEhigh 4-5500.

The Hospital for Joint Diseases in New York City will make house staff appointments to fill twelve places on the general rotating service-four interns to begin service on October 1, 1944, and eight to begin July 1, 1945. One-half of the number appointed may be per-

mitted to continue for another nine months as junior residents, and thereafter one-half of the number of junior residents may be continued for another nine months as senior residents, in accordance with the Allocation Plan of the Procurement and Assignment Service.

The Woman's Hospital in New York City announced that coincidentally with the eighty-ninth anniversary of its founding, on May 4, 1855, the

40,000th baby had been born there.

Since its founding in 1855, when a small group of charitably inclined women met in a parlor on lower Madison Avenue to plan for a modest hospital of forty beds which would care exclusively for women, the Woman's Hospital has grown to an institution of 300 beds and has cared for over half a million women," an announcement by the hospital said.
"The year 1943 marked the peak in births—2,212 babies—since maternity patients were first admitted in 1910. A great many of these babies were the children of service men now in the armed forces here and abroad."\*

In commemoration of the seventieth birthday of Dr. Isidore Friesner, former president of the medical

# for accurate dosage and minimum gastric distress IN IODIDE ADMINISTRATION EN DE

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# Health News

# Haiti Carrying Out Extensive Malaria Control Work

Haiti-site of wartime rubber and fiber-growing operations-has drained malaria swamps around six coastal communities with a combined population of 200,000 under the inter-American health and

sanitation program.

Also 20,000 people have been treated for yaws, tropical skin and blood disease, with 15,000 to 20,-000 additional treatments being given weekly.

These developments were reported by Ralph S. Howard, Jr., chief of the United States health commission to to Haiti, on his arrival in Washington to confer with officials of the health and sanitation division of the Office of the Coordinator of Inter-American Affairs.

Under the program Haiti and seventeen other American republics are cooperating with United States assistance to raise hemisphere health standards, especially in areas of strategic production and

Mr. Howard said malaria has been reduced to a secondary health problem in Port-au-Prince, Haiti's

capital.
"This was accomplished largely through instalnate mosquito breeding swamps, including considerable work around the airport," he said.
"In view of the city's importance as a terminal of

inter-American air lines, and as a seaport at the strategic Caribbean gateway to the Panama Canal, the malaria control work has value as a contribution to international quarantine.

The rest of the malaria control work involved installation of fifteen miles of drainage ditches and canals in and around the towns of Petit Goave, Aux Cayes, Cap Haitien, Port de Paix, and Mole St. Nicholas. These projects, as well as four yaws clinics established, are largely in communities from which workers are drawn for rubber and fiber plantations."

Mr. Howard reported that Haiti has seventeen specialists making public health studies under the training phases of the inter-American program.

"Such training looks to the long range in anticipation of the need in Haiti for additional technicians as the result of the impetus given health work through inter-American collaboration." he said. "Seven of the men are studying at Harvard University and ten at the School of Tropical Medicine in San Juan, Puerto Rico."

The mission headed by Mr. Howard, a sanitary engineer, is giving technical assistance to Haiti.-Release from of the Office of the Coordinator of Inter-

American Affairs

# Inhalants for Influenza Undesirable

Use of inhalations of finely atomized specific antiserum for the prevention and treatment of influenza is not now desirable, the Journal of the American Medical Association for last December 18 warns. The Journal says that it has been reported that serious reactions and death have occurred among animals being tested with such a procedure and that further human studies should be pursued with great caution.

# Secretary Perkins Sets Goal for Accident Rate Reduction

A million fewer industrial injuries in 1944 was the goal set by Secretary of Labor Frances Perkins before a recent meeting of the Department of Labor's National Committee for the Conservation of Manpower in War Industries. Its achievement, she pointed out, would amount to about a 40 per cent reduction from the 1943 total of nearly 2,500,000

injuries.
"This reduction would result in the saving of some 22,000,000 days of work," Miss Perkins said. "In manufacturing alone it would increase the number of workers on the job each day by 24,000. Many nonmanufacturing establishments are, of course, directly engaged in war work, and a curtailment of injuries in them would be of direct benefit to the war effort. Fewer injuries to persons employed in operations not directly connected with the war would do much to maintain an adequate supply of labor for

war production.
"While the goal of an over-all 40 per cent reduction may seem unduly high to some, there is no doubt that it can be accomplished in a large number of individual establishments. The work of the Department's National Committee has produced many instances of accident reduction in excess of 40 per

"The size of the accident-prevention task will make it necessary for the Department to confine its own program to manufacturing establishments engaged directly on war contracts. Nevertheless, the Department has a definite interest in the safety of wage earners in every type of work. The establish-ment of an accident reduction goal covering every type of employment will do much to stimulate the active interest of employers and workers, and assist other groups, both governmental and private, now working directly in those fields on the matter of safety."-Release from the Office of War Information

# Inadequate Diets and Nutritional Deficiencies in the United States

The Committee on Diagnosis and Pathology of the Food and Nutrition Board has reviewed material reported in widely scattered journals on the state of nutrition of the people of the United States. An ap-preciable percentage of diets fail to meet more than 50 per cent of the recommended daily allowances of the Food and Nutrition Board, but many more diets are deficient by less than 50 per cent. This wide-spread prevalence of more or less deficient diets is associated with a high incidence of deficiency states, largely mild in intensity and gradual in their course. The problem thus created is both preventive and

For prevention, production of sufficient food must be maintained and better distribution is required; judicious enrichment of appropriate foods may be advisable, and dietary education should be intensified and extended. For correction there is need for skill in detecting deficiency conditions and improved procedure for the treatment of such conditions. There has been some exaggeration of the benefits of optimal nutrition and much exploitation of the vitamins. This has retarded the proper application

[Continued on page 1272]

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HEMPSTEAD, L. I., 241 Fulton Ave. HACKENSACK, 299 Main St.

[Continued from page 1270]

of the science of nutrition. However, knowledge of the relation of nutrition to health is being rapidly uncovered. The evidence now available, incomplete though it may be, leads to but one conclusion: that "there is a real difference as measured in terms of growth development and general health record between optimum and just adequate nutrition; and that every practical effort should be made to apply this knowledge in the interest of human welfare."—

J.A.M.A., April 16, 1944

# Leukemia in Physicians

Leukemia may occur in workers with radiation under conditions like those in which carcinoma of the skin due to radiation can arise. Exposure to x-rays under experimental conditions favors the development of leukemia in animals. Since high energy radiations may play a part in human leukemia, workers in the National Cancer Institute have compared the incidence of leukemia in physicians and in the general population on the basis of the death lists of physicians in the Journal, the mortality reports of the United States Bureau of the Census, and an unpublished compilation of the United States Public Health Service. The ratio of deaths from leukemia to deaths from cancer, the ratio of deaths from leukemia to total death rates, and death rates from leukemia were studied with the result that leukemia "was recognized approximately 1.7 times more frequently among physicians than among white males in the general population." The result is in accord with the increase in the incidence of leukemia in animals exposed to x-rays. Whatever the full meaning of the data at hand may be, the hazards of radiation require the strict maintenance of complete protection at all times. - J.A.M.A., April 15, 1944

# Early Record of Vitamin C Deficiency

Perhaps the earliest recorded example of vitamin C deficiency was that described in himself by Luigi Cornaro in 1558. According to Marcovitch, Cornaro restricted his diet to bread, the yolk of egg, and a little meat, together with 14 ounces of wine. During July and August of each year he suffered from anorexia, but as soon as new wine became available his symptoms improved. In the light of modern knowledge this may be interpreted as evidence of vitamin C deficiency, since it is now known that wine, never overplentifully supplied with this vitamin, contains none at all after it becomes a year old. During periods of vitamin C deficiency, Cornaro frequently ate only the yolk of an egg; since carbohydrates create a demand for vitamin C that is not made by proteins or fats, he thus showed himself to be a keen observer and an astute selector of suitable food.—J.A.M.A., March 18, 1944

# Change in Dates of Annual Conference

The Annual Conference of Health Officers and Public Health Nurses will be held in Saratoga Springs beginning June 27, instead of June 20 as previously announced.

# Articles on "Health and War"

A series of five articles on the general theme "Health and War" have been prepared by the State

Department of Health for use by the Office of Civilian Mobilization of the New York State War Council. These papers are being distributed to city and county war councils with the recommendation that they be presented before service organizations, women's clubs, professional associations, and other interested groups. Each one is prefaced by a short introduction designed to stimulate questions and discussion. It is suggested that one paper be read at each group meeting until the entire series is covered. The subjects are: "Accidents and the War"; "Tuberculosis in Wartime"; "Communicable Diseases of Special Importance in Wartime"; "Emergency Maternity and Infant Care Program"; and "Venereal Disease as Affected by War Conditions."

Organizations interested in procuring these articles should communicate with the Office of Civilian Mobilization of the New York State War Council, 353 Broadway, Albany, New York.—Health News, May 8, 1944

# Expectation of Life

The League of Nations Monthly Bulletin for last December presents data on the expectation of life at birth and at 1 year of age in over thirty countries. For all countries covered the expectation of life at birth and in the earlier years of life is greater than in previous periods; the improvement is less striking or absent in later stages of life.

The United States ranks high in the list and is exceeded only slightly by the Netherlands, New Zealand, Australia, and Sweden. Japan, Russia, and India have the lowest expectation of life, according to the latest information available. In all countries females show a greater expectation of life than males.—J.A.M.A., March 18, 1944

# Tuberculosis Treatment in Manitoba

Since November 1, 1942, no resident of Winnipeg, Manitoba, has had to pay for tuberculosis treatment. In adopting this policy the City Council was influenced by the desirability of segregating all potential sources of infection, the fact that the cost of treating tuberculosis is ruinous to the average family, and that financial pressure frequently interferes with the patients' chances of recovery. Another factor was the difficulty experienced in securing payment of hospital bills—Bulletin, Canadian Tuberculosis Association, March, 1943

# Cycles in Tuberculosis

Tuberculosis moves so slowly that we measure its progress against a man's life. Public health men have begun to talk of family epidemics, taking two or three generations to run their course, but a longer perspective may be needed to reveal the play of major cycles.—Geddes Smith in Plague on Us, Commonwealth Fund, 1941

# Logic in Treatment of Tuberculosis

If the fire departments were to refuse to fight fires started by eigarettes not made in the home county, they would be no more ridiculous than are we when we refuse to fight tuberculosis in a person who has not lived long enough in one spot to establish legal residence.—T. J. Werle, in Health, May-June, 1941

# ANNOUNCEMENT

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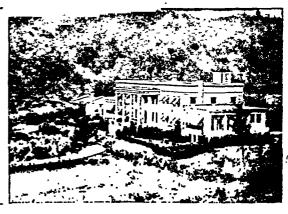
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# **Books**

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

# RECEIVED

Rorschach's Test. I. Basic Processes. By Samuel J. Beck, Ph.D. Octavo of 223 pages. New York, Grune & Stratton, 1944. Cloth, \$3.50.

Vitamins and Hormones. Advances in Research and Applications. Vol. I. Edited by Robert S. Harris and Kenneth V. Thimann. Octavo of 452 pages. New York, Academic Press, 1943. Cloth, \$6.50.

Office Endocrinology. By Robert B. Greenblatt, M.D. Second edition. Octavo of 243 pages, illustrated. Springfield, Ill., Charles C Thomas, 1944. Cloth, \$4.00.

Female Endocrinology. Including Sections on the Male. By Jacob Hoffman, M.D. Octavo of 788 pages, illustrated. Philadelphia, W. B. Saunders Co., 1944. Cloth, \$10.

The Art and Science of Nutrition. A Textbook on the Theory and Application of Nutrition. By Estelle E. Hawley and Grace Carden. Second edition. Octavo of 668 pages, illustrated. St. Louis, C. V. Mosby Co., 1944. Cloth, \$3.75.

The Wounded Get Back. By Albert Q. Maisel. Octavo of 230 pages. New York, Harcourt, Brace and Co., 1943, 1944. Cloth, \$2.50.

Kinetic Bandaging. Including Splints and Protective Dressings. The Kinetic Method of Visual Teaching. By Seymour W. Meyer, M.D. Octavo of 310 pages, illustrated. Philadelphia, F. A. Davis Co., 1943. Cloth, \$3.50.

Sexual Anomalies and Perversions. Physical and Psychological Development and Treatment. A summary of the works of the late Professor Magnus Hirschfeld, M.D. Octavo of 630 pages. New York, Emerson Books, Inc., 1944. Cloth, \$4.95.

Textbook of General Surgery. By Warren H. Cole, M.D., and Robert Elman, M.D. Fourth edition. Octavo of 1,118 pages, illustrated. New York, Appleton-Century Co., Inc., 1944. Cloth, \$10.

Allergy in Practice. By Samuel Feinberg, M.D. Octavo of 798 pages, illustrated. Chicago, Year Book Publishers, Inc., 1944. Cloth, \$8.00.

Guiding the Normal Child. By Agatha H. Bowley, Ph.D. Octavo of 174 pages. New York, Philosophical Library, Inc., 1943. Cloth, \$3.00.

Education and Health of the Partially Seeing Child. By Winifred Hathaway. Octavo of 216 pages, illustrated. Published for the National Society for the Prevention of Blindness, Inc., by Columbia University Press, New York, 1943.

Small Community Hospitals. By Henry J. Southmayd and Geddes Smith. Octavo of 182 pages. New York, Commonwealth Fund, 1944. Cloth, \$2.90.

Tropical Nursing. A Handbook for Nurses and Others Going Abroad. By A. L. Gregg, M.D. Second edition. Sextodecimo of 185 pages, illustrated. New York, Philosophical Library, Inc., 1944. Cloth, \$3.00.

Synopsis of Neuropsychiatry. By Lowell S. Selling, M.D. Duodecimo of 500 pages. St. Louis, C. V. Mosby Co., 1944. Cloth, \$5.00.

Synopsis of Diseases of the Heart and Arteries. By George R. Herrmann, M.D. Third edition. Duodecimo of 516 pages, illustrated. St. Louis, C. V. Mosby Co., 1944. Cloth, \$5.00.

Industrial Ophthalmology. By Hedwig S. Kuhn, M.D. Octavo of 294 pages, illustrated. St. Louis, C. V. Mosby Co., 1944. Cloth, \$6.50.

The War and Mental Health in England. By James M. Mackintosh, M.D. Oetavo of 91 pages. New York, Commonwealth Fund, 1944. Cloth, \$0.85.

The Medical Clinics of North America. March, 1944. Octavo, illustrated. Philadelphia, W. B. Saunders Co., 1944. Published bimonthly (six numbers a year). Cloth, \$16 net; paper, \$12 net.

### REVIEWEL

Gastro-Enterology. By Henry L. Bockus, M.D. Volume II. The Small and Large Intestine and Peritoneum. Three volumes to be published Quarto of 975 pages, illustrated. Philadelphia, W. B. Saunders Co., 1944. Cloth. Price of set, \$35.

The second volume of this monumental work covering diseases of the small and large intestine and peritoneum continues the excellent tradition established by Volume I. Again the discussion on applied anatomy and physiology is of outstanding value. The arrangement of the text makes it easy for the reader to get a general picture of each disease from the paragraph heading and to go into the details of any particular phase by reading the entire paragraph. The writer and his colleagues write entertainingly, usually in the first person, quoting actual cases from their large experience as they discuss each condition. The style alone makes it difficult to stop reading, and the placing of the

bibliography at the end of each chapter simplifies reference reading. This encyclopedic clinical work will long be remembered as one of the most important contributions to modern medicine.

A. F. R. ANDRESEN

The Mechanics of Obstetrics. By Norris W Vaux, M.D., and Mario A. Castallo, M.D. Octavo of 217 pages, illustrated. Philadelphia, F. A. Davis Co., 1943. Cloth, \$4.00.

This manual of mannequin obstetrics is used in teaching the subject during the junior year at the Jefferson Medical College. The volume is an outgrowth of loose-leaf notes and, later, bound mimeographed sets of notes used by Dr. Vaux and Dr. Montgomery in teaching the course.

The female pelvis in its normal and abnormal variations is clearly described, and the mechanism of labor in the various fetal presentations is set forth

in detail. The text is clear, concise, well arranged, and wonderfully illustrated. This book is valuable not only for teaching students but also for those who are taking refresher courses.

WILLIAM SIDNEY SMITH

Textbook of Medicine. By various authors. Edited by J. J. Conybeare, D. M. Oxon. Sixth edition. Octayo of 1,147 pages. Baltimore, Williams & Wilkins Co., 1942.

Of the minor textbooks of medicine, Conybeare's is probably the best known. Now in its sixth edition (October, 1942), it has been carefully brought up to date by a staff of eighteen contributors, with two or three exceptions, all of London.

All of the articles are concise but not cramped, and essential material is adequately presented. Pathology has not been slighted. One does not look for historic data, and references to the literature are

purposely omitted.

The volume is well printed, well arranged, and enriched with sections on neurology, psychologic medicine, and common diseases of the skin. It fits the hand (3½ pounds) and will be welcomed and consulted by many doctors.

FRANK BETHEL CROSS

Medical Leaves: A Review of the Jewish Medical World and Medical History. Volume V. Dr. Hershel Meyer (Ed.). Quarto of 190 pages, illustrated. Chicago, Medical Leaves, Inc., 1943.

This is the fifth volume of a series of publications, each of which represents a symposium on medical history. There is invaluable information available to those interested in medical history, and this volume, like its predecessors, does much to indicate the part played by Jews in medicine, in scientific and cultural accomplishments.

A. M. RABINER

Experimental Surgery. A Laboratory Guide for Undergraduate Students. By J. M. McCaughan, M. D. Quarto of 80 pages, illustrated. St. Louis, C. V. Mosby Co., 1943. Paper, \$2.00.

This loose-leaf book containing eighteen different exercises for experimental surgery on animals is, of course, essentially for the undergraduate student. However, the simplified technics, which are well illustrated, could be used by the graduate student who is interested in working out some of his own ideas, provided he has access to the material.

The technic of operating upon animals is very similar to that used in operating upon human beings. However, the care of the animal before operation and after operation is a little different, and the reaction of the various physiologic constants is also somewhat different. At the end of each exercise are a number of questions to be answered with an operative sheet somewhat similar to that used in all operating rooms. There is also a good list of references about the particular exercise that has been performed.

This guide fulfills the purpose for which it has been written.

HERBERT T. WIKLE

Peripheral Vascular Diseases (Angiology). By Saul S. Samuels, M.D. Octavo of 84 pages. New York, Oxford University Press, 1943. Cloth, \$2.00

This short text is devoted entirely to an outline of peripheral vascular diseases. It covers the commoner diseases of arteries, veins, and lymphatics, and has two chapters on the anatomy of vessels and their nerve supply. Each chapter is followed by a short but comprehensive bibliography.

[Continued on page 1276]



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[Continued from page 1275]

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ROBERT F. BARBER

The Hospital in Modern Society. Edited by Arthur C. Bachmeyer, M.D., and Gerhard Hartman, Ph.D., Octavo of 768 pages. New York, Commonwealth Fund, 1943. Cloth, 85.00.

To the desk of the hospital administrator come many periodicals, often containing articles of lasting value to himself and more particularly for the training of his departmental executives. When it is current, information in this form is acceptable, but as reference material it soon becomes almost inaccessible. The Hospital in Modern Society, representing ninety-eight authors, is a compilation of just such data and covers practically all problems in the administration of hospitals. A most valuable feature is the suggested reference reading.

W. G. NEALLEY

Experimental Biochemistry. By George D. Wessinger, M.S., Ph.D. Octavo of 108 pages, illustrated. St. Louis, C. V. Mosby Co., 1943. Paper, \$1.50.

The title of this volume is somewhat misleading. It is really not a book on experimental biochemistry, but is a manual of experiments in biochemistry. It presents briefly and concisely the steps to be followed in biochemical tests. It is fragmentary and incomplete. Planned for dental students, it appears to serve its purpose adequately.

WILLIAM S. COLLENS

Medical Radiographic Technic. Prepared by the Technical Service Department of General Electric X-Ray Corporation under the editorial supervision of Glenn W. Files, Director. Quarto of 365 pages, illustrated. Springfield, Ill., Charles C Thomas, 1943. Cloth, \$6.00.

Various books have been published on x-ray technic, but no others are so copiously illustrated and so descriptive. This book has been developed from the experience of the expert technicians of the General Electric Corporation, with original practical photographs revealing proper positioning and technic. The illustrations of the properly positioned parts are unusually excellent, and the angle of projection required, together with the focal point, is additionally portrayed by means of a mirrored image, so that one carefully following directions cannot but markedly improve his results.

The theory and physics of the x-ray are simply and well described and the factors affecting the quality of the radiographs are thoroughly explained. Stereoscopic projection, laminography, and foreign-body localization are included, as well as the modern technic of photographing the fluoroscopic image which is now so frequently employed for chest

study in the armed services.

The book is written essentially for the x-ray technician, for which reason a chapter is, with good judgment, devoted to human anatomy, without a knowledge of which no technician worthy of the name can operate.

It is a "must" book for those interested in the specialty, and is as important to the radiologist as to his lay assistant.

MILTON G. WASCH

The Mind of the Injured Man. By Joseph L. Fetterman, M.D. Octavo of 260 pages, illustrated. Chicago, Industrial Medicine Book Co., 1943. Cloth, \$4.00.

This is an unusually well-written book on a subject that has always been associated with much controversy. The question of the influence of trauma on the nervous system is handled in a versatile way, and matters that have occurred in the routine practice of every physician are discussed and evaluated.

The reviewer has enjoyed reading this book and is certain that others will benefit by doing so.

A. M. RABINER

A Manual of Cardiology. By Thomas J. Dry. Duodecimo of 310 pages, illustrated. Philadelphia, W. B. Saunders Co., 1943. Cloth, \$3.00.

This well-written, well-printed manual is adequate in every way. Simplified methods of diagnosis are presented and contentious discussions are omitted. Pathology, murmurs, and the mode of their production are coordinated with all collateral evidence, and thus concepts are rendered clear, to the reader's profit.

Electrocardiographic phases and radiographic studies are well presented. Conspicuously absent is the American Heart Association's classification of heart disease. The omission should be corrected in a second edition, which the volume well deserves.

FRANK BETHEL CROSS

Elements of Medical Mycology. By Jacob Hyams Swartz, M.D. Octavo of 179 pages, illustrated. New York, Grune & Stratton, 1943. Cloth, \$4.50.

This book is an excellent treatise on medical mycology. It covers in detail the morphology and cultural characteristics, together with the definite

diagnoses, of the various types of fungi.

It is all summed up in a table, at the back of the book, which gives the clinical picture and mycologic findings of most, if not all, of the pathogenic fungi of the skin. The book is printed in a clear manner

with excellent illustrations.

Altogether, it is to be highly recommended.

JOHN C. GRAHAM

Pain. (Res. Publ. Ass. Nerv. Ment. Dis., Vol. 23.) Editorial Board, Harold G. Wolff, M.D., Chairman. Octavo of 468 pages, illustrated. Baltimore, Williams & Wilkins Co., 1943. Cloth, \$7.50.

The thirty-two contributions in this volume and the excellent discussions on them should be read by everyone interested in the subject of pain, whether it be from a physiologic, anatomic, or diagnostic angle. They deal with the pain in connection with peripheral nerves, cerebral cortex, muscles, skin, headache, nose, eye, joints, urinary tract, bronchi, lungs, digestive tract, and heart. It is unfortunate that there are no papers dealing with the use of this knowledge of pain in the differential diagnosis of diseases of the different viscers.

M. A. Rabinowitz

The Arthropathies. A Handbook of Roentgen Diagnosis. By Col. Alfred A. de Lorimier, M.D., (MC), USA, Commandant, the Army School of Roentgenology, Memphis, Tenn. Octavo of 319 pages, illustrated. Chicago, Year Book Publishers, Inc., 1944. Cloth, \$5.50.

This is a handbook compiled from a series of lectures delivered at the Army Medical School, Washington, D.C., and the Army School of Roentgenology, Memphis, Tennessee, describing and lavishly illustrating the various afflictions of the joints.

The subject is didactically treated in extremely simple language, and is presented in two partsone on peripheral joints and the other on the spine. Eighty-five pages are given to the latter. Since there is still much knowledge of this portion of the skeleton to be gained, the space allotted is well con-

The x-rays are thoroughly captioned, arrowed, and lettered, directing the reader to the essential findings. Unfortunately, the illustrations, probably collected over the years, lack the detail that modern rotating anode tubes now produce. Far outweighing this shortcoming, however, is the exhaustive bibliography following each chapter, so that one desirous of investigating a particular arthropathy need only refer to this book for its inherent knowledge and further guidance.

MILTON G. WASCH

Childbirth Without Fear. The Principles and Practice of Natural Childbirth. By Grantly Dick Read, M.D. Octavo of 259 pages. New York, Harper & Bros., 1944. Cloth, \$2.75.

This is a book written for the laity, who will, I think, not appreciate it, dedicated to the idea that childbirth should be painless. "Anesthesia," he says, "in natural childbirth is rarely desired by the woman, or justified, even on humane grounds." Walt Disney could hardly do justice to the 'Silly Symphony of Obstetric Analgesia."

Everyone who practices obstetrics should read this book. The specialist will be delighted with it,

and will learn a lot.

CHARLES A. GORDON

Office Treatment of the Nose, Throat and Ear. By Abraham R. Hollender, M.D. Octavo of 680 pages, illustrated. Chicago, Year Book Publishers, Inc., 1943. Cloth, \$5.00.

The very publication of a book of this type is definitely a step forward in the right direction in so far as office treatment and medical otolaryngology are concerned. The author attempts to evaluate the patient as a whole, bringing out the interrelationship of the ear, nose, and throat to the general body economy. The sincere and seasoned otolaryngologist is heartily in sympathy with the wide dissemination of a book of this type because of its scope and content. The general practitioner may well profit by the study of this book in order that he, too, may more adequately fulfill his obligation to the patient.

The author covers the entire field of otolaryngology in chapters and subdivisions which make for easy reading and ready reference. This work, therefore, acts not only as instructor but also as a reminder to the "Knights of the Scalpel," that pateints with otolaryngologic problems can also be relieved or cured by proper hygiene, adequate and well-balanced diets, and good habits, together with medical care and "office otolaryngology."

[Continued on page 1278]

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# IN THE NEWS

SUCROSE FOR LACTOSE-In order that more lactose may be available for penicillin production, the Committee on National Formulary, with the approval of the Council of A. Ph. Association, has authorized the use of sucrose in National Formulary preparations of which lactose is an ingredient. Except in connection with pepsin the sucrose must contain not less than 96.5% pure sucrose and not more than 3.2% of starch.

[Continued from page 1277]

Pathology and Therapy of Rheumatic Fever. By Leopold Lichtwitz, M.D. Octavo of 211 pages, illustrated. New York, Grune & Stratton, 1944. Cloth, \$4.75.

This is an especially well-written treatise on the pathology and therapy of rheumatic fever. author emphasizes the sensitization character of rheumatic disease and brings out in a clear way the high incidence of arthritis which is of rheumatic origin and which is so commonly overlooked because of the absence of heart findings.

His contribution on therapy is illuminating, and the importance of desensitization in treatment is emphasized. Dr. Lichtwitz looks disapprovingly upon

gold therapy.

HENRY M. FEINBLATT

Essentials of Dermatology. By Norman Tobias, M.D. Second edition. Duodecimo of 497 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1944. Cloth, \$4.75.

In 1941, when this work of Dr. Tobias made its first appearance, it was our pleasant duty to review it. It is no wonder to us that a second edition has be-

come necessary. As a teacher of his subject, Dr. Tobias has kept abreast of the very latest thought. and this new edition reflects the thoroughness of his study and judgment. Much of the book has been rewritten and considerable new material added. The illustrations are not only well chosen but are the work of a master in photographic technic. Over forty pages are given to the subject of syphilis alone, and its diagnosis and treatment are brought thoroughly up to date. The pages on treatment are especially instructive and the directions so detailed and complete as to leave no chance for error.

The book is filled with many very practical and serviceable prescriptions, and special pages have been devoted to the use of the sulfonamide drugs in dermatology and a table of normal values. These pages have been added, no doubt, as a second thought, and are pasted in the covers for quick

reference.

Three years of personal use with the first edition of this handbook makes the purchase of its successor a pleasant necessity.

The publishers are to be congratulated on the format, the typography, and the general handy

NATHAN THOMAS BEERS

### CUSHING'S LIBRARY

ing no one was more deeply imbedded in his personality than his love of books. Beginning as a student, he built up a library of nearly eight thousand volumes, a collection he bequeathed to Yale University. Certain sections of the library, having particular interest on account of their size or completeness, were to be catalogued by his request. In order to give a complete idea of the whole library, however, the Historical Library of the Yale Medical Library has issued a short-title catalogue of all the books.

To those familiar with Cushing's taste in books, it is not surprising to find the incunabula section and the writings of Paracelsus, Paré, and Vesalius filling many shelves. Indeed, one hundred and sixty-eight medical incunabula, with sixty manuscripts, comprise a collection that any medical library would be proud to own. Hardly half a dozen collections of this magnitude exist in America. In addition, Cushing owned over forty editions of books by Paré, sixteen by Paracelsus, and more than fifty by Vesalius.

The last, the only group carefully worked over by Cushing, have recently been considered in a special study. Other authors, however, are also

Of the multiple interests of the late Harvey Cush- , well represented: Robert Boyle, sixty-one editions; Nicholas Culpeper, one hundred and ten; Daniel Drake, sixteen; Robert Fludd, nineteen; Samuel Garth, twenty-four; William Harvey, forty-three; Edward Jenner, thirty; Leonardo da Vinci, eight-cen; Carl von Linné, thirty-four; Silas Weir Mitchell, forty-three; William Salmon, twenty; Mitchell, forty-three; William Salmon, twenty; and Tobias George Smollett, seven. The longer lists might be supplemented by many important shorter ones, some containing even greater books from the pens of less prolific writers. His contemporaries-Osler, Klebs, Welch, Power, Sarton, Singer, and others—are naturally fully represented. Since the surgical texts and periodicals were removed from his library when Cushing left Boston in 1930, the books now catalogued represent those that he thought were worth saving, the result of years of collecting. If an individual library may be said to reflect the man, surely a portrait of Cushing stands out in the contents of this catalogue. Broad interest, complete details, sound universality but exact focal discrimination, and "looking all around a problem," to use one of his favorite expressions—in other words, the characteristics of Harvey Cushing—are well mirrored in his carefully selected library—New England J. M

### FIRST LISA AWARD

The Society of the Alumni of City (Charity) Hospital, in New York City, announces the presentation of the first James R. Lisa Award to Lt. Chauncey L. Royster, (MC), AUS. Lieutenant Royster received the award for his work on "The Cardiac Findings in Syphilis Combined with Hypertension, in the Absence of Aortic Regurgitation."

The Lisa Award was established by the Alumni Society of the City Hospital to recognize work in re-

search medicine done in the laboratories of the hospital under Dr. Lisa's direction, the award to be made by Dr. Lisa at appropriate times to the worker deemed by him to be worthy of it. The award consists of a medallion and an honorarium of several hundred dollars. Lieutenant Royster graduated at Cornell University Medical College in 1935 and served his internship and residency at the City Hospital.

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[Continued from page 1277]

Pathology and Therapy of Rheumatic Fever. By Leopold Lichtwitz, M.D. Octavo of 211 pages, illustrated. New York, Grune & Stratton, 1944. Cloth, \$4.75.

This is an especially well-written treatise on the pathology and therapy of rheumatic fever. The author emphasizes the sensitization character of rheumatic disease and brings out in a clear way the high incidence of arthritis which is of rheumatic origin and which is so commonly overlooked because of the absence of heart findings.

His contribution on therapy is illuminating, and the importance of desensitization in treatment is emphasized. Dr. Lichtwitz looks disapprovingly upon

gold therapy.

HENRY M. FEINBLATT

Essentials of Dermatology. By Norman Tobias, M.D. Second edition. Duodecimo of 497 pages, illustrated. Philadelphia, J. B. Lippincott Co., 1944. Cloth, \$4.75.

In 1941, when this work of Dr. Tobias made its first appearance, it was our pleasant duty to review it. It is no wonder to us that a second edition has be-

come necessary. As a teacher of his subject, Dr. Tobias has kept abreast of the very latest thought, and this new edition reflects the thoroughness of his study and judgment. Much of the book has been rewritten and considerable new material added. The illustrations are not only well chosen but are the work of a master in photographic technic. Over forty pages are given to the subject of syphilis alone, and its diagnosis and treatment are brought thoroughly up to date. The pages on treatment are especially instructive and the directions so detailed and complete as to leave no chance for error.

The book is filled with many very practical and serviceable prescriptions, and special pages have been devoted to the use of the sulfonamide drugs in dermatology and a table of normal values. These pages have been added, no doubt, as a second thought, and are pasted in the covers for quick

reference.

Three years of personal use with the first edition of this handbook makes the purchase of its successor a pleasant necessity.

The publishers are to be congratulated on the format, the typography, and the general handy

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### CUSHING'S LIBRARY

of the multiple interests of the late Harvey Cushing no one was more deeply imbedded in his personality than his love of books. Beginning as a student, he built up a library of nearly eight thousand volumes, a collection he bequeathed to Yale University. Certain sections of the library, having particular interest on account of their size or completeness, were to be catalogued by his request. In order to give a complete idea of the whole library, however, the Historical Library of the Yale Medical Library has issued a short-title catalogue of all the books.

Well represented: Robert Boyle, sixty-one editions; Nicholas Culpeper, one hundred and ten; Daniel Drake, sixteen; Robert Fludd, nineteen; Samuel Garth, twenty-four; William Harvey, forty-three; Edward Jenner, thirty; Leonardo da Vinety, in Mitchell, forty-three; William Salmon, twenty; and Tobias George Smollett, seven. The longer lists might be supplemented by many important shorter ones, some containing even greater books from the books.

To those familiar with Cushing's taste in books, it is not surprising to find the incunabula section and the writings of Paracelsus, Paré, and Vesalius filling many shelves. Indeed, one hundred and sixty-eight medical incunabula, with sixty manuscripts, comprise a collection that any medical library would be proud to own. Hardly half a dozen collections of this magnitude exist in America. In addition, Cushing owned over forty editions of books by Paré, sixteen by Paracelsus, and more than fifty by Vesalius.

The last, the only group carefully worked over by Cushing, have recently been considered in a special study. Other authors, however, are also well represented: Robert Boyle, sixty-one editions; Nicholas Culpeper, one hundred and ten; Daniel Drake, sixteen; Robert Fludd, nineteen; Samuel Garth, twenty-four; William Harvey, forty-three; Edward Jenner, thirty; Leonardo da Vinci, eighteen; Carl von Linné, thirty-four; Silas Weir Mitchell, forty-three; William Salmon, twenty; and Tobias George Smollett, seven. The longer lists might be supplemented by many important shorter ones, some containing even greater books from the pens of less prolific writers. His contemporaries—Osler, Klebs, Welch, Power, Sarton, Singer, and others—are naturally fully represented. Since the surgical texts and periodicals were removed from his library when Cushing left Boston in 1930, the books now catalogued represent those that he thought were worth saving, the result of years of collecting. If an individual library may be said to reflect the man, surely a portrait of Cushing stands out in the contents of this catalogue. Broad interest, complete details, sound universality but exact focal discrimination, and "looking all around a problem," to use one of his favorite expressions—in other words, the characteristics of Harvey Cushing—are well mirrored in his carefully selected library —New England J. M

# FIRST LISA AWARD

The Society of the Alumni of City (Charity) Hospital, in New York City, announces the presentation of the first James R. Lisa Award to Lt. Chauncey L. Royster, (MC), AUS. Lieutenant Royster received the award for his work on "The Cardiac Findings in Syphilis Combined with Hypertension, in the Absence of Aortic Regurgitation."

The Lisa Award was established by the Alumni Society of the City Hospital to recognize work in research medicine done in the laboratories of the hospital under Dr. Lisa's direction, the award to be made by Dr. Lisa at appropriate times to the worker deemed by him to be worthy of it. The award consists of a medallion and an honorarium of several hundred dollars. Lieutenant Royster graduated at Cornell University Medical College in 1925 and served his internship and residency at the City Hospital.

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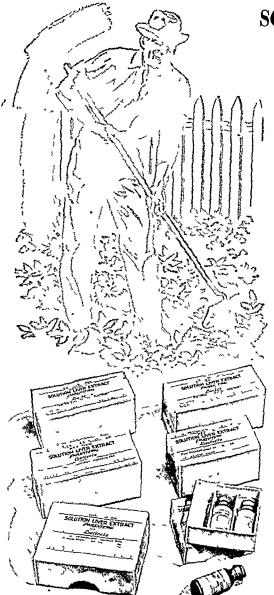
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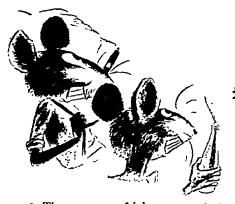
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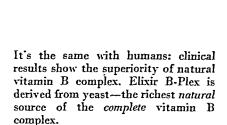
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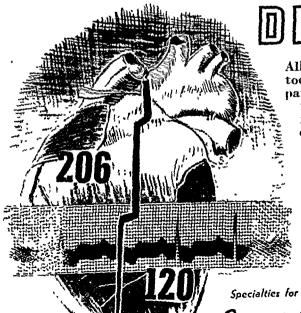
# SCIENTIFIC ARTICLES

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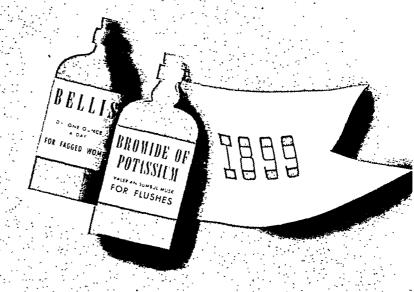
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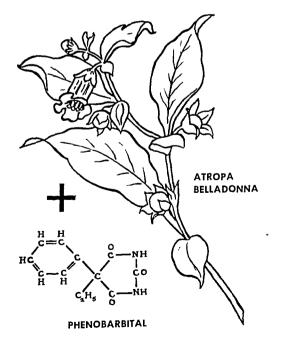




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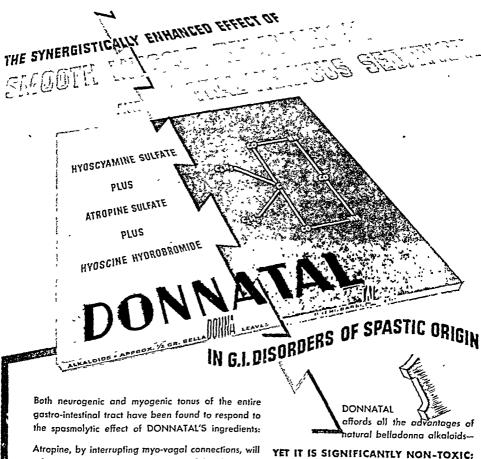
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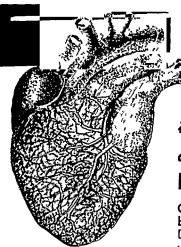
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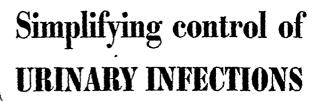
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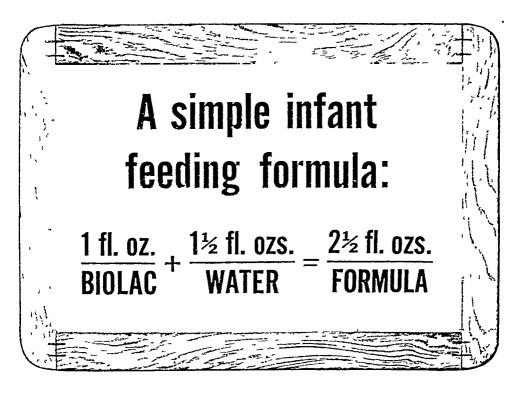
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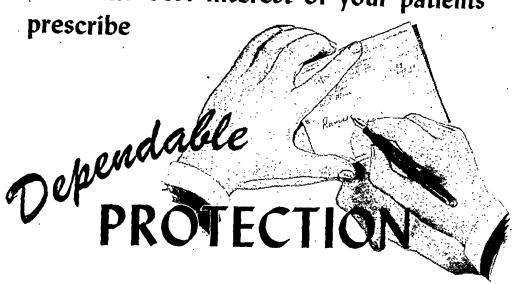
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Borden's complete infant formula\*



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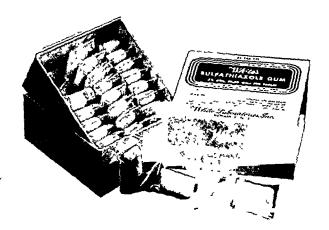
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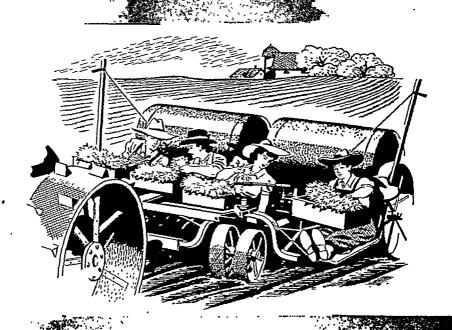
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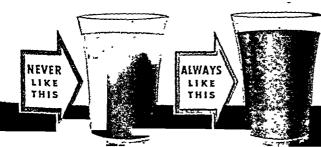


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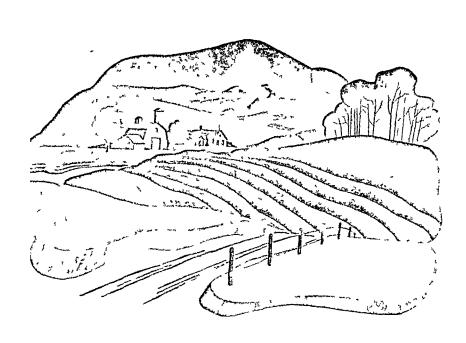
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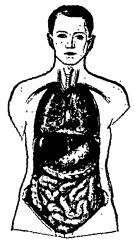
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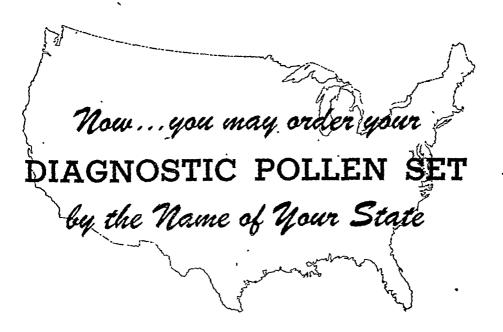
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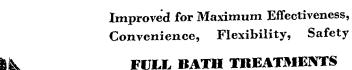
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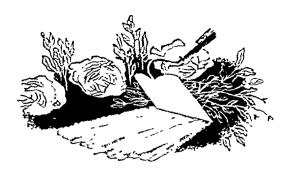
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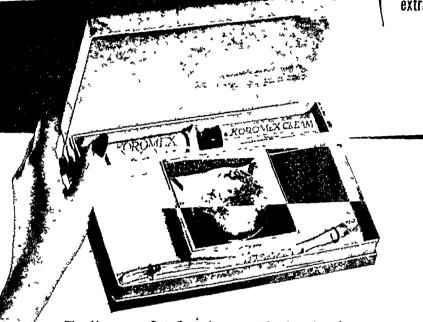


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REFERENCES—(1) Boyer, N. H.; J.A.M.A. 122:307, 1943. (2) Clement, S. C.: Med. Rec. & Ann. 38: 755, 1944. (3) Gilbert, N. C.: Quart. Bull. Northwestern Univ. Med. School 16:179, 1942. (4) Gilbert, N. C. & Kerr, J. A.: J.A.M.A. 92:201, 1929. (5) Stroud, W. D.: Diagnosis & Treatment of Cardio-vascular Disease, Vol. I, Chap. 22. (6) White, P. J. Bland, E. F. & Miskall, E. W.: J.A.M.A. 123:801, 1943. (7) Wippern, V. & Gunn, S. A: Med. Times 70:197, 1942. (8) Ziskin, T.: Jnl-Lancet 58:292, 1937.

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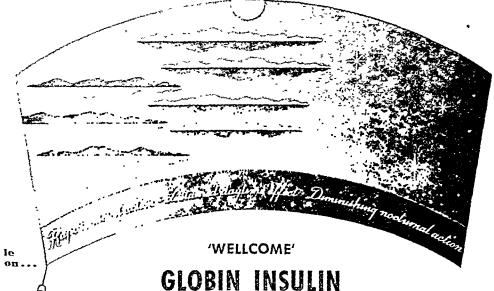
### WINTHROP CHEMICAL COMPANY, INC.

Pharmaceuticals of merit for the physician NEW YORK 13, N. Y. WINDSOR, ONT.

Now ...

## timed insulin action,

## the keymote of control



WITH ZINC

timed for rapid onset of action to meet the needs of the morning timed for strong continuing daytime effect

timed for diminishing action during the night when the needs become less

While fulfilling these requirements for timed insulin action, the keynote of control in diabetes, this new type insulin also has the advantage of controlling many moderately severe and severe cases of diabetes with only a single injection daily. It is a clear solution and in its freedom from allergenic skin reactions is comparable to regular insulin.

Wellcome' Globin Insulin with Zinc, an important advance in diabetic control, was developed in the Wellcome Research Laboratories, Tuckahoe, New York. U. S. Pat. 2,161,198.

Vials of 10 cc. 80 units in 1 cc.



Laterature on request





### Walker's A-DDROPS

SOMETHING NEW! Natural esters of vitamin A (distilled from fish liver and vegetable oils), plus activated ergosterol in a vehicle of refined corn oil.

Advantages of this new product are:

- 1. Practically no "fishy" odor' or taste.
- Excellent stability.
   Each DROP supplies Vitamin A—2,000 U.S.P. Vitamin D- 300 U.S.P. Units
- 4. It's good—it's flavored with cinnamon.
  5. It's "Council Accepted."
- From infancy through childhood—for good "A-D" insurance - prescribe WALKER'S A-D DROPS.

## WALKER

VITAMIN PRODUCTS, INC.

Mount Vernon

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## SHOES AS THERAPEUTIC AGENTS

No doctor can ignore that shoe therapy is a major factor in the treatment of many foot disorders. In some cases, however, when further medical or surgical treatment is required, the shoes must be adjusted to conform to any changes such treatments make in the shape or size of the feet.

Pediforme shoes are prepared through experienced craftsmen to make the necessary adjustments as prescribed by the orthopedic surgeon or physician in these cases.

With puchases restricted it is readily apparent that substantial shoes, capable of reconstruction or easy adjustment, should be prescribed. For all practical purposes, Pediforme footwear may well be considered in shoe therapy.

A SHOE FOR EVERY MEMBER OF THE FAMILY . . . A SHOE FOR EVERY INDIVIDUAL RE-QUIREMENT.

MANHATTAN, 36 West 36th St. NEW ROCHELLE, 545 North Ave. BROOKLYN, 322 Livingston St. EAST ORANGE, 29 Washington Pl. 843 Flatbush Ave HEMPSTEAD, L.I., 241 Fulton Ave. HACKENSACK, 299 Main St.



The use of non-absorbable alkali marks an advance in ulcer therapy. Widely used, Aluminum Hydroxide Gel is capable of neutralizing large amounts of acid without inducing alkalosis. Alumina gel by intragastric drip is of great value when milk sensitiveness exists.

Aluminum Hydroxide Gel Squibb is a palatable aqueous suspension containing approximately 1.85 grams aluminum hydroxide per fluid ounce. It is sufficiently fluid to pour readily. Its fluidity makes it particularly adaptable to dilution for use by the continuous intragastric drip method.

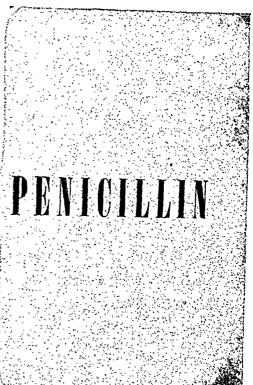
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Literature to physicians on request.

## E:R:SQUIBB & SONS

Manufacturing Chemists to the Medical Profession Since 1858





★ FROM THE BEGINNING, Eli Lilly and Company has been active in the development of Penicillin, and for several months has made it available to the armed forces on government allocation and to the Office of Scientific Research and Development.

The material has been so scarce that very little has been available for civilian use, and then only on special assignment. Even in army and navy hospitals it often was restricted to patients unresponsive to sulfa-drug treatment.

Penicillin'is now more generally available, and research to achieve the ultimate in chemotherapeutic perfection continues as a major project in the Lilly laboratories.

Eli Lilly and Company, Indianapolis 6, Indiana, U.S.A.

Lilly BUY WAR BONDS FOR VICTORY

## NEW YORK STATE JOURNAL OF MEDICINE

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**VOLUME 44** 

JUNE 15, 1944

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### Editorial

### Workmen's Compensation

On page 1343 of this issue will be found the report to the House of Delegates of the Medical Society of the State of New York at its Annual Meeting of the reference committee on the report of the Council Committee on Workmen's Compensation. We strongly urge that it be read in full and reread by every physician in the State, in simple justice to the great number of physicians, county medical societies, administrators, and insurance companies who have labored honestly, intelligently, and diligently to afford good medical service to injured workmen in the State of New York. It is perhaps too much to hope that much of the report will be given space by the press, principally because of the great rush of other matters. But, for the information of the physicians of the State, we comment upon it in these columns and also print it in full elsewhere in this issue.

Says the report of the reference committee, adopted unanimously in executive session of the House of Delegates and ordered printed:

"It has been through the untiring efforts and specialized knowledge of the Committee and of the Bureau of Compensation that organized medicine, through its component societies, has functioned so well. The rating of thousands of physicians who wished to qualify under the provisions of the law has been a task of great magnitude, and it is the opinion of your Committee that it has been done efficiently and conscientiously. The few complaints that were made by the physicians came from those who thought their ratings were not sufficiently high.

"The Bureau, in addition, has ably fought for the legal and financial rights of the physicians under the Law as amended in 1935, against the innumerable assaults that were made upon these rights. Free choice became more than a legal fiction, at least in upstate New York. Fees were paid promptly, special services were more adequately rewarded, and the arbitration of disputed bills was efficiently handled. The medical profession of the State of New York owes a great debt to this bureau..."

"One would imagine from the newspaper accounts of recent months that the main culprit under investigation by the Moreland Act Commission was the medical profession. It is a fact, however, that not only a portion of the medical profession, but also a portion of the legal profession, some insurance carriers, some employers, the State Insurance Fund. licensed representatives of the workingman, and the administrators of the Department of Labor itself-all were excoriated in the raport to the Governor, and many changes were made in the Law, designed to correct not only evils that had arisen in medical administration but also to curb the very questionable activities in all other departments having to do with the administration of the Compensation Law.

"It may be, perhaps, that the newspapers considered the finding of medical scoundrels to be news, the inference being that the finding of all the other scoundrels in the administration of the Law had no news value."

Indeed, it has become, of late, almost fashionable in many quarters to make of the profession a "whipping boy," for what reason remains to be seen. It is certainly true that there are some scoundrels in the medical profession, as in any other, since its members are human beings; and the report of the reference committee says of them:

"The report of the Moreland Act Commission

revealed two outstanding medical evils: one concerned the commercial laboratories, x-ray and others, supply houses for medical appliances, suppliers of oxygen, etc., and the nefarious financial relationship that existed between them and many physicians; second, the activities of many members of the medical profession were exposed, proving them to be without either honesty or professional honor. A few of the latter formed rings with lawyers and licensed labor representatives, aimed at perverting the very Law itself and depriving the workingman of his just rights. Fee-splitting, bribery flourished on every side."

The Moreland Act Commission, moreover, placed the blame on the compensation boards, especially on four in greater New York, and on the State Bureau for their inaction and neglect in curing these conditions. The reference committee did not feel that this accusation should pass unchallenged.

"First, as to the commercial laboratories: the proposal that the commercial laboratories be banned was proposed by the Pool Committee, and was included in the original draft of the bill that created the amendments of 1935. This was emasculated through the activities of certain commercial interests, and the way was left open for commercialism in compensation practice. Had the suggestion of the medical profession on this point been enacted into law, the problem of the commercial laboratory, with all of its inherent evils, would have ceased to exist in compensation law. It was, therefore, legal for them to function under the law, as it was for a certain percentage of the medical profession, who, by their general lack of morality, cast a sinister shadow over an honorable profession. We hold no brief for these men. We do not defend them. We do not apologize for them. We condemn them without reservation.

"The criticism directed at the compensation boards of the county societies and of your State Bureau by the Moreland Act Commission for their inaction and laxity in curbing these nefarious gentlemen in our opinion is not fully justified, the more so when we see the same commission enact into a law a procedure that would give the county society compensation boards a real power and procedure to deal with professional misconduct.

"The enactment of this law at the request of the Moreland Act Commission is really an admission on the part of the Commission that the capacity and power of the compensation boards was entirely inadequate to cope with the situation."

This seems so obvious as to need no comment, yet it seems to have had no news value—even to PM, an advocate of evenhanded justice to all.

"To infer that the boards were ignorant of the misconduct so rampant around them would be an

insult to their intelligence; that some of them failed to use all the little legal power they had is possible Knowledge of a crime, and even of a criminal, is one thing, but the serious business of putting a permanent stop to the criminal is still another. To do that, one must have power. And the legal powers of the compensation boards in this serious matter were mythical. . . . .

"Incidentally, it was not until May\_4, 1943eight years after the enactment of the amendmentsthat the county societies were informed that they were authorized to subpoena witnesses and render the oath to witnesses. We have in this belated interpretation by the Attorney General of the Civil Practice Act an opinion that it is inherent in the law that the compensation boards of the medical societies have that power. This opinion now is even questioned by legal authorities. The opinion indicated, however, that such authority is not contained in Section 13-d of the Compensation Law itself. If the compensation boards had had that definite authority from 1936 on, there would have been no nose-thumbing at the compensation committees of the county societies, and far less nose-holding when the probers went to work last year.

"Previous to May, 1943, these boards believed they had no such power. Without that power any legal investigation committee is helpless. Without a subpoena a man could refuse to appear, and without an oath only his reputation as a liar would be at stake. The boards had no one to initiate charges no legal investigating committees, no legal advisers—in fact, the boards had no legal teeth at all to bring down the prey.

The reference committee reported that allegations that the Compensation Bureau of the Medical Society of the State of New York and the Compensation Committees of the various county medical societies were inactive or lax, after they were assured of any legal power to try offenders, were, and are, untrue. It displays the evidence that this was so:

"Up to the present time, the various county society boards of the metropolitan area have heard over two thousand physicians—truly a tremendous task, and one indicating a capacity and a determination that they were accused of lacking.

"All of this was done without undue delay, considering the legal questions raised by the counsel for the New York County Society and by others as to the authority of the medical societies to act."

The reference committee also studied the steps taken by the Medical Society of the State of New York concerning the Moreland Act Commission's investigations. These steps will be found in the full report. The reference committee comments:

"We believe that the physicians composing the

compensation boards of the county societies throughout the State—and, of course, that includes those of the Bronx, New York, Kings, and Queens—were in general conscientious, diligent, and trustworthy. Although the rest of the county societies retain their former status, with new powers, under the Law, we feel that the substitution of a three-man medical practice committee for the boards of the above-mentioned societies in Greater New York is an affront to the honor and dignity of the medical profession, and that every honorable effort should be made to modify the new law to the end that these boards be restored to their proper sphere.

"Professional honor is a very personal matter with the men who composed these four boards, and it is our opinion that they should be permitted to function under the new powers granted by the Legisla-

ture.

"We also believe it would make for better administration of the medical aspects of the Compensation Law."

The reference committee comments upon the new law, which becomes operative as this is printed. "Whether all of its provisions are wise can be determined only by experience in its operation." A plea is made for the restoration of the "full activities of the compensation boards of the medical societies of Bronx, New York, Kings, and Queens counties." It makes but one recommendation, based on "a contribution to this subject by a committee of the New York Academy of Medicine, slightly modified. . . . that in so far as the medical aspects of the Workmen's Compensation Law are concerned, the Governor be petitioned to appoint each year a state-wide committee of physicians to review the situation and to suggest such studies or changes as might be indicated in order that weaknesses of the Law or of its administration might be detected and corrected as soon as they become discernible and before they attain undue proportions."

Thus has the reference committee done. The facts speak for themselves. An inestimable service has been done by the Committee to the physicians and the people of

the State of New York.

### Penicillin Therapy

As soon as penicillin therapy had advanced beyond the experimental stage, the Council Committee on Public Health and Education and the New York State Department of Health developed an educational program to assist in the dissemination of the latest information to the medical profession. This plan is in keeping with the postgraduate program of the Medical Society of the State of New York, much of which is presented as a joint endeavor with the nine medical schools of the State, the New York State Department of Health, and several other agencies.

A group of speakers experienced in the use of penicillin therapy is now available for lectures, demonstrations, and clinics at meetings of county medical societies, hospital staffs, and other medical groups. This group of speakers held a conference on penicillin therapy in Albany on Wednesday, April 26, 1944, at the Laboratory of the New York State Department of Health on New Scotland Avenue. The program consisted of introductory remarks by Dr. Edward S. Rogers, Assistant Commissioner for Medical Administration, New York State

Department of Health, and Dr. O. W. H. Mitchell, Chairman, Council Committee on Public Health and Education of the Medical Society of the State of New York. The following scientific program was presented:

"Penicillin as a Type of Antibiotic Substance of Microbiological Origin"

Charles Thom, Ph.D., formerly botanist and mycologist, U.S. Department of Agriculture "The Pharmacology and Production of Penicillin"

Maurice L. Tainter, M.D., Director of Research, Winthrop Chemical Company, Inc.
"Penicillin in the Treatment of Venereal Disease"

J. F. Mahoney, M.D., Director, Venereal Disease Research Laboratory, U.S. Marine Hospital, Staten Island, New York

"The Clinical Use of Penicillin and Other Antibiotics"

Chester S. Keefer, M.D., Chairman, Committee on Chemotherapeutic and Other Agents, Medical Science Division, National Research Council.

At the conclusion of the program at the laboratory, the speakers visited the penicillin plant of the Winthrop Chemical Company.

Several requests have already been received for lectures on penicillin therapy. Meetings have been held in Syracuse, Saranac Lake, and Oneida, and other lectures have been arranged for the Broome County Medical Society and the Sullivan County Medical Society.

County medical societies and hospital staffs interested in this educational program should direct their requests to the Council Committee on Public Health and Education of the Medical Society of the State of New York, Dr. O. W. H. Mitchell, Chairman, 428 Greenwood Place, Syracuse, New York.

We urge all county medical societies to get in touch at once with the Chairman of the Council Committee on Public Health and Education of the Medical Society of the State of New York, to arrange a program on this subject.

It is probable that penicillin will be increasingly available for civilian use as production increases. It is therefore highly important that as many physicians in the State as can do so be instructed in its clinical use at once.

### Nurses for the Armed Forces, II

The need for nurses for the armed forces continues unabated. As was said previously, the quota set for the State of New York for the first half of the year 1944 was 1,957, with the quota for the second half still undetermined at this writing. New York State's reserve of "available" nurses remains about 5,206 (May 15), from which some 1,328 were needed to fill the balance of the first-half quota. Thus on June 30, 1944, there will still be approximately 3.878 "available" nurses remaining from which to supply the requirements of the armed forces for the second half of 1944.

In a previous editorial<sup>1</sup> we touched upon the mechanism by which, now, the Procurement and Assignment Service for Nurses, through its sixty-one local committees and its State committee, obtains the names of registered nurses from nurses' registers or private agencies, hospitals, public welfare associations, industries, and other sources with information on file as to each nurse's age and type of position. We explained briefly that each local nurse Procurement and Assignment committee, composed of representatives from medical, hospital administrative, and lay groups "reviews each case after studying the circumstances existing at the agency employing the nurse," so that, as far as possible, all groups or individuals affected by the nurse procurement program in this State are afforded ample opportunity to be heard before final classification of the individual nurse is made.

It should be made clear that the State

Procurement and Assignment Center for

the nurses is a division of the War Manpower Commission and is responsible not only for the procurement program for the armed forces but also for the conservation of nursing service for civilian necessities. Those physicians who since 1941 have served on P. and A. committees for the procurement of physicians will remember and appreciate the difficulties inherent in any such procurement program for professional people.

After tentative classification of nurses is made by the sixty-one local committees, final classification is made by the State Committee and the names and classifications of available nurses are forwarded for follow-up and individual investigation to the local Nurse Recruitment Committee of the American Red Cross, the official agency for the recruitment (as opposed to procurement) of nurses for the armed forces. After investigation, the Red Cross renders an up-to-date report on the personal circumstances of each nurse to the State Procurement and Assignment Service for final classification. In cases where the individual nurse is available, qualified, and willing, the Red Cross forwards her application for military service.

We have reason to believe that the mechanism of recruitment and procurement of nurses has not been and is not now fully understood either by the medical profession or the public. The assistance of the physicians of the State is highly necessary to the success of the nurse recruitment program. physicians must be convinced of the pressing necessity for nurses for the armed forces; they must be informed of the mechanism by which they are procured by the Man-

<sup>&</sup>lt;sup>1</sup> New York State J. Med. 44: 1201 (1944).

power Commission and recruited by the American Red Cross for military service. They must themselves cooperate whenever possible by releasing nurses from their offices, either for military service if they are 1-A or 1-B-1, or to replace younger nurses who have left from industry or the hospitals. The physicians can be of the greatest service if they will help publicize among their patients the necessity for more nurses for the armed services and if they will discourage luxury nursing and private-duty nursing whenever this seems to be justified by the circumstances.

It is probably true that some hospitals and institutions in the State may be understaffed, temporarily. But

"Volunteer hospitals of the city are in a position to meet any crisis which may arise and have maintained fully the standard hospital services which they performed before the war, Roy E. Larsen, president of the United Hospital Fund, told the Greater New York Fund yesterday.....

"Mr. Larsen said that hospital management has maintained hospital service with the help of volunteers and through the sacrifices of doctors and

nurses, despite a greater patient load.

"He wrote that older doctors are filling in for the younger men called into the service, that nurses have been brought from retirement to supplement depleted nursing staffs, and that hospital volunteers are rendering valuable service in many ways. Disaster equipment and emergency crews have been placed in readiness for any emergency, he said.

The one effect of the war that is giving concern, he said, is depletion of maintenance forces, which is causing hospitals to defer plant rehabilitation."<sup>2</sup>

This statement by Mr. Larsen covers 403 voluntary hospitals in Greater New York. Conditions in some areas in rural and suburban regions may be and probably are worse, at least for the moment. It is possible that some instances can be found of understaffing of hospitals due to withdrawals of nursing personnel to meet the demands of the armed forces.

After all, we are in a war. In the third year of a war. Our immense resources of manufacture and personnel are being strained to meet the requirements of the armed forces, which come first. We may in this year have to live in cooler homes, we may have to forego all but essential automobile driving, we may have to dispense with luxury nursing, unnecessary travel, office nurses, vacations away from home, and many other things we have considered necessary. But what of it? If the men in the armed forces need the nurses, they are going to have them, and we are certain that the physicians of this State will do all in their power to aid the Procurement and Assignment Service for Nurses and the American Red Cross to see that they get all they really need-and quickly.

2 New York Herald Tribune, May 21, 1944.

### Correspondence

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To the Editor: New York State Journal of Medicine Dear Sir:

You who have been privileged to know Dr. James Ewing and his splendid work will be interested in developing a worthy tribute to his memory. The Board of Managers of the Memorial Hospital has named a committee to sponsor this tribute. It was the life-long dream of Dr. Ewing to further enthusiastic interest in tumors and there has been created the James Ewing Memorial for the study and teaching of Neoplastic Diseases.

It is proposed to raise by voluntary subscription the sum of not less than \$150,000, the income of which is to be used to attain the following objectives:

1. To support undergraduate and graduate instruction for medical students at Cornell University Medical College and Memorial Hospital, integrating the clinical, pathological, and therapeutic aspects of tumors.

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2. To support a series of not less than two lectures on recent advances in neoplastic diseases, to be given annually either at the New York

New York Herald Tribune, May 21, 1944.

Academy of Medicine or at such location as the supervisory committee may see fit.

3. To support such special study as may seem advisable to the supervisory committee.

This fund will be supervised by a self-perpetuating committee to be appointed by the President of Memorial Hospital, ratified by the Board of Managers, selected from the Memorial Hospital and Cornell University Medical College to be composed of not less than five members; three from Memorial

Hospital and two from Cornell University Medical College.

We feel sure that you will want to contribute to this living memorial to a distinguished scientist and a great man. Checks may be made payable to the Memorial Hospital, Ewing Fund, 444 East 68th Street.

Sincerely yours,

ELISE S. L'ESPERANCE
Chairman, Ewing Memorial Committee

## 1944 Scientific Exhibits Awards

The Committee on Scientific Awards is pleased to render the following report after careful study and evaluation of the Scientific Exhibits at the 1944 Annual Meeting of the Medical Society of the State of New York:

#### RESEARCH AWARDS

First Award: Ludwig von Sallmann, M.D., and Karl Meyer, M.D., Columbia University College of Physicians and Surgeons, New York—"Penicillin Ophthalmology."

Second Award: Benjamin Jablons, M.D., and Jules Cohen, M.D., City Hospital and Goldwater Memorial Hospital, New York—"Photoplethysmographic Studies on Circulation."

#### CLINICAL AWARDS

First Award: Henry K. Taylor, M.D., and Teresa McGovern, M.D., Goldwater Memorial Hospital, New York—"Cardioangiography."

Second Award: Lee A. Hadley, M.D., Syracuse Memorial Hospital, Syracuse—"X-Ray Studies of the Spine."

Honorable Mention: William E. Howes, M.D., Gregory L. Robillard, M.D., and Alfred L. Shapiro, M.D., Brooklyn Cancer Institute, Brooklyn—"Salvage Therapy in Advanced Cancer."

Special mention goes to the Halloran General Hospital, R. C. DeVoe, Colonel, (MC), USA, Commanding Officer.

# MEASURES TO PREVENT AND CONTROL AN EPIDEMIC OF RINGWORM OF THE SCALP

GEORGE M. LEWIS, M.D., SEYMOUR H. SILVERS, M.D., ANTHONY C. CIPOLLARO, M.D., EMANUEL MUSKATBLIT, M.D., New York City, and HAROLD H. MITCHELL, M.D., Long Island City\*

A N EPIDEMIC of tinea capitis in New York City caused by Microsporon audouini and involving several thousand children has been spreading for more than a year. A striking increase in the incidence of the disease was first noticed in the Borough of Queens, apparently spreading to other parts of the city during subsequent months. The issue has been inadequately dealt with, partly because of ignorance of its epidemiology, lack of experience because of no prior city-wide outbreak, procrastination because the disease causes no mortality, and the difficulty of carrying out a program of city-wide proportions.

According to information received from dermatologists in other parts of the United States, tinea capitis has become more frequent in many other large cities, apparently approaching the status of an epidemic. This is a unique situation for this country. It is a characteristic of M. audouini to cause localized outbreaks in institutions, but in a search through the American literature we can find evidence of only one citywide epidemic<sup>2</sup> and certainly no record of a pandemic similar to that now affecting children in widely scattered parts of the country.

It is well known that ringworm of the scalp became such a problem in France that infected children were sent to separate schools from those not infected. Sabouraud's solution<sup>3</sup> was epilation of the scalp hair by roentgen rays, and this method of treatment was found to be more effective than any other mode of attack. The present epidemic developed in spite of the availability of this modality, so it is obvious that other measures are necessary in order to bring it under control.

# Possible Causes of the Present Epidemic

It is important to try to establish possible reasons for the epidemic character of the infection, which has heretofore been present as sparadic solitary cases or localized outbreaks. The following factors are considered to have a bearing on the spread of the infection to its present proportions:

Read at the Annual Meeting of the Medical Society of the State of New York, New York, May 10, 1944.

- 1. Decreased maternal care and supervision because mothers are employed in factories and offices.
- 2. Country-wide change of residence of members of the armed forces and war workers. Infected children are moved from place to place,, traveling with their parents to new locales.
- 3. Overcrowding in children's institutions and a rapid turnover in these institutions. Inefficient supervision, partly because of lack of personnel and equipment. Infected children have been known to be discharged to their homes from state institutions.
- 4. The spread of the infection is possible through the medium of barber shops and moving picture houses, the backs of subway seats, and other inanimate contacts. Infected hairs have been found in an East Harlem moving picture house. No barber shops were found to be infected and no other theaters showed hairs which proved to be infected when inspected under filtered ultraviolet rays.
- 5. There is no evidence of increased pathogenicity of M. audouini from limited animal experimentation and tests with trichophytin.

#### The Astoria Project

Since many of our recommendations are based on the lessons learned in this experiment, a brief summary is given. In November, 1942, a school nurse in the Astoria health district, with a population of 240,000, reported an unusual number of children with infected scalps. In February, 1943, the public health and education authorities in this district became aware of an extensive epidemic of ringworm infection among the school children.

It was decided by the District Health Officer to establish a diagnostic center to find the extent of the infection, to assist in diagnosis, and to advise practitioners. A preliminary survey showed that a majority of the cases were treated by the family physicians after a diagnosis of tinea capitis had been made by inspection alone. The diagnostic center was fortunate in obtaining the full cooperation of the school district superintendent and the principals, teachers, and teachers' associations.

All known infected children were asked to come to the diagnostic center for examination. They were examined under the filtered ultraviolet rays.

<sup>\*</sup>The authors were appointed by the Association of Dermatosyphilologists of Greater New York as a special committee to study problems connected with the epidemic of tingworm of the scalp now prevalent in New York City.

Academy of Medicine or at such location as the supervisory committee may see fit.

3. To support such special study as may seem advisable to the supervisory committee.

This fund will be supervised by a self-perpetuating committee to be appointed by the President of Memorial Hospital, ratified by the Board of Managers, selected from the Memorial Hospital and Cornell University Medical College to be composed of not less than five members; three from Memorial

Hospital and two from Cornell University Medical College.

We feel sure that you will want to contribute to this living memorial to a distinguished scientist and a great man. Checks may be made payable to the Memorial Hospital, Ewing Fund, 444 East 68th Street.

Sincerely yours, ELISE S. L'ESPERANCE Chairman, Ewing Memorial Committee

#### 1944 Scientific Exhibits Awards

The Committee on Scientific Awards is pleased to render the following report after careful study and evaluation of the Scientific Exhibits at the 1944 Annual Meeting of the Medical Society of the State of New York:

#### RESEARCH AWARDS

First Award: Ludwig von Sallmann, M.D., and Karl Meyer, M.D., Columbia University College of Physicians and Surgeons, New York—"Penicillin Ophthalmology."

Second Award: Benjamin Jablons, M.D., and Jules Cohen, M.D., City Hospital and Goldwater Memorial Hospital, New York—"Photoplethysmographic Studies on Circulation."

#### CLINICAL AWARDS

First Award: Henry K. Taylor, M.D., and Teresa McGovern, M.D., Goldwater Memorial Hospital, New York—"Cardioangiography."

Second Award: Lee A. Hadley, M.D., Syracuse Memorial Hospital, Syracuse—"X-Ray Studies of the Spine."

Honorable Mention: William E. Howes, M.D., Gregory L. Robillard, M.D., and Alfred L. Shapiro, M.D., Brooklyn Cancer Institute, Brooklyn—"Salvage Therapy in Advanced Cancer."

Special mention goes to the Halloran General Hospital, R. C. DeVoe, Colonel, (MC), USA, Commanding Officer.

(e) When cases are found, a district diagnostic center should be set up. This should function in a manner similar to the Astoria center. It should have as its aim the management of the case from the public health standpoint, assisting in having the patient treated with x-rays by a physician competently trained or serving in a dermatologic clinic. It will also certify that the patient is cured after he has been treated and before he is allowed to return to school. The center will disseminate information to parents, teachers, and children, will help to create good will, and will strive for cooperation among all those interested in the problem.

(f) The city should appropriate sufficient

money for these projects.

(g) Each patient's scalp should be cultured before the x-ray epilating dose is administered.

(h) A pamphlet describing ringworm of the scalp in simple terms should be given to every child in the school before the examining team reaches the school. This pamphlet should also urge the mothers to bring preschool children for examination when the team reaches the school.

#### 2. Education of the Public

The public should be reached through the press, from pamphlets (as mentioned), and by the radio. In this way uninfected children and their parents may be apprised of dangerous habits or practices.

#### 3. Institutions

It is recommended that city-wide, complete, and periodic inspection of children who are in institutions be made by qualified physicians. No child is to return home from an institution unless he has been examined under filtered ultraviolet rays. No child should be accepted for institutional care without a negative report after examination under filtered ultraviolet rays.

### 4. Barber Shops

- (a) The barbers should receive pamphlets from the Department of Health and from the Barbers' Association. They should be told about the epidemic and cautioned to be on the look-out for lesions on the scalp.
- (b) The barbers should be prohibited from cutting the hair of a child known to have or suspected of having ringworm infection.

(c) The possibility of chemical sterilization of barbers' instruments is to be considered.

#### 5. Movies and Other Public Places

We recommend the wearing of hats by children as a precaution against infection in public places such as picture houses, children's clinics, in subways, etc.

#### 6. Preparation for X-Ray Treatment

Clinics which treat infected children should themselves clip and shave the hair prior to epilation, or the parents should be instructed to do so. The parents should be warned not to take an infected child to a barber.

#### 7. Treatment

(a) X-ray epilation is the best available treatment in the majority of cases of scalp ringworm infection due to M. audouini. Cases due to Microsporon lanosum usually do not require roentgen therapy.

(b) The Department of Health should register equipped and properly staffed clinics and qualified physicians for the treatment of ringworm of the scalp. It is hoped that the registration itself will act as a deterrent to improper roentgen

treatment.

(c) It has already been mentioned that the Department of Health should provide a plan for follow-up of the cases to ensure adequate treatment until the patient is free of infection. This could best be accomplished by the establishment of regional centers, based on the experience of the Astoria demonstration.

#### 8. Suggested Methods of Management

(a) It is our belief that x-ray epilation is best carried out under the direction and supervision of a dermatologist. There is often failure to realize that epilation of the scalp is a precise, difficult procedure requiring a calibrated machine and specific training of the operator.

(b) It is our experience that the standardization of x-ray machines in terms of r units varies with the calibrating apparatus. For this reason we suggest that this physical standardization

should be supplemented by biologic tests.

(c) Of the various technics advocated for epilation of the scalp hair with roentgen rays, our experience leads us to believe that the five-point Adamson-Kienboeck method of administration is the most satisfactory for routine use.

(d) Observation of the patient under filtered ultraviolet rays (Wood light) prior to the administration of x-rays is an integral part of the treatment, since it establishes the extent of the infection.

#### 9. Criteria for Cure

It is recommended that no child be permitted to return to school until he is entirely free of infection. At least two negative examinations, one week apart, under filtered ultraviolet rays should be made before the child is referred to the Board of Health for admission to school. We recommend a subsequent examination under the filtered ultraviolet rays one month after return to school.

a culture was taken, and clinical records were kept. All child contacts were examined. New cases were soon found. The past treatment was appraised, and if unsatisfactory, the physician was told of the advantages of referring the patient to a skin clinic or to a dermatologist for the special care required.

The Medical Society of the County of Queens cooperated fully in preparing a letter under its auspices for distribution to the physicians of the county. The letter stated the nature of the epidemic of tinea capitis and suggested that infected children should be treated by qualified dermatologists or in clinics equipped to give roentgen therapy.

The teachers and public health nurses were asked to send to the center all children suspected of being infected. Examination of all children in a school, utilizing the Wood light, soon proved to be a most useful method of discovering new These cases were referred to the diagnostic center for corroboration of the diagnosis, culture, and examination of all known child contacts. Each case was followed by the diagnostic center until cured. Soon the diagnostic center had to take on a new function. Follow-up treatment had to be instituted in cases in which the x-ray epilation was incomplete. Such patients received daily manual epilation until they were cured and returned to school. This service was not available elsewhere except in isolated clinics or offices. The center also made a sincere effort to obtain the cooperation and understanding of the parents, since lay people seldom comprehend the difficulties encountered in treating and curing a case of tinea capitis. This was especially true during the first six months, when treatment failures were common.

Absence from school became a problem because it involved several hundred children in the district. With the cooperation of the school authorities, teachers were assigned to these classes. They conducted four classes: two morning and two afternoon sessions. Since the demand for entrance into these classes was greater than their capacity, admittance was limited to those children whose ringworm infection was complicated by unsuccessful x-ray epilation. Experience had shown that these children would probably have a prolonged absence from school. The diagnostic center was located in the same school so that these children could be kept more readily under observation.

During the five months that these special classes were functioning, 90 infected children received instruction, to the satisfaction of the children, parents, and school and health authorities. Of the 90 children who attended these classes, 56 have been cured and returned to their regular

classes. Thirty-four children are still attending the special classes. A school in the district which had the greatest number of infected cases was populated entirely by white children and served a neighborhood inhabited mainly by skilled workers and civil service employees. Of a total school population of about 900, there were 112 infected children. At present, 14 cases are still active, while 98 have been cured and the children have returned to school.

Rigid standards were set for determining whether a patient was cured. After the patient was considered cured by the clinic or doctor, two consecutive negative examinations by the diagnostic center, a week apart, were required before the child could return to school. The great majority of the children pronounced cured and again attending school had to return to the diagnostic center several times for follow-up examinations at intervals of from two weeks to three months.

Over a period of a little more than a year, 432 children with tinea capitis were registered at the diagnostic center. Of these, 411 had an infection with M. audouini. By April 1, 1944, 362 of these were known to be cured, while 70 cases were still active. X-ray epilation alone, without the aid of after-care and treatment, cured 134 cases. New cases have decreased considerably.

# Measures to Control the Epidemic in New York City

Based on the Astoria demonstration, on our individual experiences in hospitals, in private practice, and in health work, and from discussions among ourselves and with other physicians, we submit the suggestions which follow in the hope that they will form the basis for a public health program adequate for the needs of this community.

#### 1. Case-Finding

- (a) Tinea capitis should be made a reportable disease.
- (b) As a preliminary step to control the present epidemic of ringworm, it is essential to make a city-wide case-finding survey of all school children, using filtered ultraviolet rays (Wood light). No one knows how many cases there are or where they are. Preschool children in the families of infected school children should also be examined.
- (c) The case-finding survey should be repeated every three months.
- (d) The examining team should be equipped and instructed to take material for microscopic examination and cultures when the examination is made. This will help to shorten the period between the discovery of the disease and the active treatment of the patient.

(e) When cases are found, a district diagnostic center should be set up. This should function in a manner similar to the Astoria center. It should have as its aim the management of the case from the public health standpoint, assisting in having the patient treated with x-rays by a physician competently trained or serving in a dermatologic clinic. It will also certify that the patient is cured after he has been treated and before he is allowed to return to school. The center will disseminate information to parents, teachers, and children, will help to create good will, and will strive for cooperation among all those interested in the problem.

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# Prevention of Tinea Capitis

In a community in which there are no cases but in which the children may come into contact with the infection, the school board would be well advised to purchase a Wood light and have the school nurse instructed in its use. The children in the schools could then be periodically examined not less than every three months. The teachers should be instructed regarding the clinical appearance of tinea capitis. The children and parents should be given a pamphlet outlining the nature of the disease, emphasizing its difficulty of cure and the importance of avoiding known cases of the infection. They should be advised not to go to camp unless all the children in the camp have been examined and found free of the disease. The possibility that motion picture houses and barber shops are sometimes responsible for dissemination of the disease makes it desirable not to rub the head against the back of the theater seat, and the scalp should be thoroughly washed at home as soon as possible after a haircut.

#### Conclusions

- 1. A serious situation exists in New York City, with an unknown number of cases of tinea capitis.
  - 2. All boroughs of the city are involved.
- 3. In order to control the epidemic, active cooperation between the Health Department, dermatologists, dermatologic clinics, and school authorities is essential.
- The Health Department should lead by declaring the disease reportable, surveying all schools periodically, setting up diagnostic clinics in districts where the disease is prevalent, and disseminating information to the general public.
- 5. Filtered ultraviolet rays (Wood light) are essential in case-finding and in determining when cure has taken place.
- 6. Infections caused by M. audouini should promptly receive the benefit of x-ray therapy. Local measures are usually ineffective.
- 7. Communities free of the disease should take active steps to prevent the disease or to localize any nidus that appears. The small outlay of money necessary to inaugurate and sustain such a plan is in no way commensurate with the probable benefits to be obtained from such a far-sighted effort in the interest of public health.

#### References

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#### Discussion

Dr. Royal M. Montgomery, New York City-1 heartily concur with everything Dr. Lewis and his coauthors have said. They are to be congratulated on their plan to prevent and control the spread of tinea capitis, which has reached epidemic propor-

All New York clinics have shared in the increased incidence of tinea capitis in the last two years. At the New York Skin and Cancer Unit, between 1935 and 1942 inclusive, an average of 77 cases of tinea capitis were treated each year (Table 1). Microsporon audouini, the causative fungus in this epidemic, was the causative agent in an average of 36.5 cases each year, or 47.4 per cent. The M. audouini cases started to increase above the norm in 1941 and 1942, when 53 and 61 cases, respectively, were treated. In 1943 the total number of cases increased tremendously. Of the 572 cases treated, 496, or 86.7 per cent, were caused by M. audouini. During the first four months of 1944, out of a total of 165 cases, 131, or 83 per cent, were caused by M. audouini.

In upper Manhattan there are many cases of ringworm of the scalp still active.

Too little publicity has been given to this epidemic. Consequently, in many of the schools in New York there have been no examinations of the scalp under filtered ultraviolet light. In order to diagnose the cases and to control this epidemic, examination under this light is essential. Once the program outlined by Dr. Lewis has been brought before parent groups, the faculty of each school, and civic organizations interested in school conditions, better cooperation with the health department can be secured. Once the need for this examination is understood, the means will be made available because of the pressure of public opinion.

The fact that the vast majority of these scalp infections first appear over the occiput would indicate that it may have been contracted following the resting of the head on the back of a seat. Movie seats might be a common source of contagion. It would be advisable to insist that all children be protected by light skull caps while in such places.

TABLE 1 Incidence of Tinea Capitib at the New York Sein and Cancer Unit, New York Post-Graduate Medical School and Hospital, Columbia University, January 1, 1935, to May 1, 1944.

		1935-1942 Average per Year	1943	1944 (4 Months)	Total
Total number of cases of tinea capitis Cases caused by Micro-	616	77	572	165	1353
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Properly supervised by a physician and protected by a sterilized cotton skullcap, an infected child should be able to carry on a normal life with his or her playmates. Too often infected children are segregated and become psychiatric behavior problems.

This is an opportune time to stress the fact that all children who attend camps this summer should be examined under filtered ultraviolet rays before their departure. All those infected should be barred. Many children returned from summer camps last fall with ringworm of the scalp.

Dr. Mitchell and Dr. Silvers should be congratulated on the handling of the epidemic in the Astoria district. If this program were initiated in all the health districts in New York I am sure that it would soon bring this epidemic under control.

In view of the fact that there are so many cases of M. audouini infections throughout New York City, I hope that the Health Department will adopt the complete program that has just been so thoroughly discussed.

Dr. Seymour H. Silvers, Brooklyn—Among the 450 children with tinea capitis whom I observed in the Astoria Health District during the past fifteen months, I encountered no serious local or generalized complications from the scalp infection. The most serious and most common complaint of both children and parents was that of loss of educational opportunities and classes missed because of enforced absence from school. The special classes for infected children were opened about eight months after the epidemic was recognized in the district. They were limited to children in the neighborhood of the school, since transportation facilities were not provided Children below the second grade were not admitted to these classes.

My figures show that the number of days lost from school because of tinea capitis varied from 30 to 430. The infected child averaged 151 days lost from school. The child who received successful x-ray epilation lost comparatively little time from school as compared with the one whose x-ray epilation was unsuccessful. In 134 children the x-ray epilation was successful. In 92, or 41 per cent, of the childred epilated with x-ray, it was unsuccessful. These children required additional treatment lasting from two and a half months to one year before they were cured and permitted to return to school.

I believe that if the experiences gained in controlling the epidemic of tinea capitis in the Astoria Health District were applied to other areas where the disease is prevalent, epidemics of tinea capitis could be eradicated and new epidemics could be prevented.

Dr. Emanuel Muskatblit, New York City—It was a pleasure and a privilege for me to take part in discussions which resulted in the report read by Dr. George M. Lewis. I wish to add a few statistical data on the incidence of ringworm of the scalp as observed at the Skin Clinic of New York University. During a period of ten years, from 1930 to 1940, 145 cases were registered. During the last year, from March, 1943, to April, 1944, 111 cases were admitted. Therefore, the incidence of this disease has increased about eight times.

Another point I wish to touch on is the differentiation between the two most common species of fungicausing the disease, namely, Microsporon audouini and Microsporon lanosum. This is of practical importance because the cases due to M. audouini require x-ray epilation, while the cases due to M. lanosum are usually curable by antiparasitic applications alone.

Clinical observation of the scalp is not decisive. It is true that M. audouini usually causes the non-inflammatory forms of tinea capitis, whereas M. lanosum often produces a noticeable inflammatory reaction. There are, however, cases in which M. audouini infection is accompanied by considerable inflammation, even a typical kerion, and M. lanosum can produce entirely noninflammatory lesions.

Microscopic examination of hairs is of no help either, because both species give identical pictures. Some fine differences can be noted at times. In cases caused by M. lanosum a greater abundance of mycelian filaments inside the hair and more frequent presence of such filaments outside of the hairs, in the scales, may be visible. These fine details, however, are not constant and are difficult to observe. The only reliable method of identifying the parasite is by means of cultures. The differential points on Sabouraud's medium are as follows:

- 1. Rate of Growth,—M. lanosum grows about twice as fast as M. audouini. A 2-week-old culture of M audouini will be 1/2 in. in diameter while a culture of M. lanosum of the same age will be 1 in. in diameter.
- 2. Character of Down on Surface of the Colony.— The down of M. audouini is compact and low. It resembles velvet. The down of M. lanosum is loose, luxuriant, and elevated. It resembles cotton.
- 3. Configuration.—M. audouini produces a white, downy, discoid culture which retains this structure for a long time. M. lanosum often develops a flat, brownish, powdery area in the center surrounded by a wide, elevated, downy ring. This feature is more constant on medium made with maltose than on one made with dextrose.
- 4. Production of Pigments.—M. audouini does not produce any pigmentation of the surrounding medium. M. lanosum forms a yellow, soluble pigment which causes discoloration of the medium which is visible on transillumination.
- 5. Pleomorphic Degeneration.—M. audouini does not degenerate. The colony retains its essential features for several months until it dries and dies. M. lanosum degenerates in a few weeks and turns into a mass of loose, white down in which all typical features are lost.
- 6. Microscopic Morphology.—Only one formation is important—the large spindle-shaped spores, the so-called fuseaux. In a culture mount of M. audouini they are either entirely absent or scarce. In M. lanosum they are present in great numbers.
- 7. Fermentation Reactions.—M. lanosum causes rapid fermentation of dextrose and mannitol, which M. audouini does not.
- 8. Pathogenicity for Animals.—M. audouini is not pathogenic for laboratory animals. Inoculations into the skin of guinea pigs, for instance, fail

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This is an opportune time to stress the fact that all children who attend camps this summer should be examined under filtered ultraviolet rays before their departure. All those infected should be barred. Many children returned from summer camps last fall with ringworm of the scalp.

Dr. Mitchell and Dr. Silvers should be congratulated on the handling of the epidemic in the Astoria district. If this program were initiated in all the health districts in New York I am sure that it would soon bring this epidemic under control.

In view of the fact that there are so many cases of M. audouini infections throughout New York City, I hope that the Health Department will adopt the complete program that has just been so thoroughly discussed.

Dr. Seymour H. Silvers, Brooklyn-Among the 450 children with tinea capitis whom I observed in the Astoria Health District during the past fifteen months, I encountered no serious local or generalized complications from the scalp infection. The most serious and most common complaint of both children and parents was that of loss of educational opportunities and classes missed because of enforced absence from school. The special classes for infected children were opened about eight months after the epidemic was recognized in the district. They were limited to children in the neighborhood of the school, since transportation facilities were not provided Children below the second grade were not admitted to these classes.

My figures show that the number of days lost from school because of tinea capitis varied from 30 to 430. The infected child averaged 151 days lost from school. The child who received successful x-ray epilation lost comparatively little time from school as compared with the one whose x-ray epilation was unsuccessful. In 134 children the x-ray epilation was successful. In 92, or 41 per cent, of the childred epilated with x-ray, it was unsuccessful. These children required additional treatment lasting from two and a half months to one year before they were cured and permitted to return to school.

I believe that if the experiences gained in controlling the epidemic of tinea capitis in the Astoria Health District were applied to other areas where the disease is prevalent, epidemics of tinea capitis could be eradicated and new epidemics could be prevented.

Dr. Emanuel Muskatblit, New York City-It was a pleasure and a privilege for me to take part in discussions which resulted in the report read by Dr. George M. Lewis. I wish to add a few statistical data on the incidence of ringworm of the scalp as observed at the Skin Clinic of New York University. During a period of ten years, from 1930 to 1940, 145 cases were registered. During the last year, from March, 1943, to April, 1944, 111 cases were admitted. Therefore, the incidence of this disease has increased about eight times.

Another point I wish to touch on is the differentiation between the two most common species of fungi causing the disease, namely, Microsporon audouini and Microsporon lanosum. This is of practical importance because the cases due to M. audouini require x-ray epilation, while the cases due to M. lanosum are usually curable by antiparasitic applications alone.

Clinical observation of the scalp is not decisive. It is true that M. audouini usually causes the noninflammatory forms of tinea capitis, whereas M. lanosum often produces a noticeable inflammatory reaction. There are, however, cases in which M. audouini infection is accompanied by considerable inflammation, even a typical kerion, and M. lanosum can produce entirely noninflammatory lesions.

Microscopic examination of hairs is of no help either, because both species give identical pictures. Some fine differences can be noted at times. In cases caused by M. lanosum a greater abundance of mycelian filaments inside the hair and more frequent presence of such filaments outside of the hairs, in the scales, may be visible. These fine details, however, are not constant and are difficult to observe. The only reliable method of identifying the parasite is by means of cultures. The differential points on Sabouraud's medium are as follows:

1. Rate of Growth .- M. lanosum grows about twice as fast as M. audouini. A 2-week-old culture of M audouini will be 1/2 in. in diameter while a culture of M. lanosum of the same age will be 1 in. in diameter.

Character of Down on Surface of the Colony .-The down of M. audouini is compact and low. It resembles velvet. The down of M. lanosum is loose, luxuriant, and elevated. It resembles cotton.

Configuration .- M. audouini produces a white, downy, discoid culture which retains this structure for a long time. M. lanosum often develops a flat, brownish, powdery area in the center surrounded by a wide, elevated, downy ring. This feature is more constant on medium made with maltose than on one made with dextrose.

4. Production of Pigments.-M. audouini does not produce any pigmentation of the surrounding M. lanosum forms a yellow, soluble pigment which causes discoloration of the medium which is visible on transillumination.

Pleomorphic Degeneration .- M. audouini does not degenerate. The colony retains its essential features for several months until it dries and dies. M. lanosum degenerates in a few weeks and turns into a mass of loose, white down in which all typical features are lost.

Microscopic Morphology.-Only one formation is important—the large spindle-shaped spores, the so-called fuseaux. In a culture mount of M. audouini they are either entirely absent or scarce. In M. lanosum they are present in great numbers.

7. Fermentation Reactions .- M. lanosum causes rapid fermentation of dextrose and mannitol, which M. audouini does not.

8. Pathogenicity for Animals.-M. audouini is not pathogenic for laboratory animals. Inoculations into the skin of guinea pigs, for instance, fail with rare exceptions. M. lanosum is easily inoculable.

Of these eight differential points, four are the most practical because they can be observed easily and early. They are: rapid growth, luxuriant down, yellow pigmentation of the medium, and abundance of large fuseaux in the culture mount.

Dr. Marion B. Sulzberger, New York City—A few weeks ago I had the privilege of discussing with Commissioner Stebbins, Dr. Theodore Rosenthal, and others of the Department of Health some of the problems connected with the control of ringworm infections of the scalp in children. As Dr. Samuel M. Peck has pointed out so clearly, the problems are complex and not free from numerous practical difficulties. As compared with many smaller centers of population which the U.S. Public Health Service, Dr. Louis Schwartz, and Dr. Peck have been investigating, in New York City the incidence of infection is low in proportion to the total number of school children and to the available facilities for diagnosis and treatment.

Nevertheless, even in New York City there are not sufficient facilities for rapid, accurate, and efficient diagnoses and therapy. The number of physicians and technicians sufficiently instructed and experienced to make the differential diagnosis between ringworm and other scalp conditions and in particular between Microsporon audouini and Microsporon lanosum infections is not adequate. Even the number of clinics with accurately calibrated roentgen ray machines and especially with technicians capable of administering x-ray depilation with surety and safety may well be insufficient.

Dr. Anthony C. Cipollaro, New York City-There exists an epidemic of ringworm of the scalp. Methods for controlling this epidemic and for curing the disease have not been fully utilized. Efforts to control the epidemic and to cure the disease have been made by individual physicians and clinics with partial success. This epidemic affects children in New York City and in such cities as Philadelphia, Pittsburgh, Chicago, and other communities where there is a concentration of population because of war industries. Whether or not this tremendously large number of cases of ringworm of the scalp con- . stitutes an epidemic is for the epidemiologists to decide. So far as I know and so far as many of the dermatologists with whom I have discussed this condition know, there exists an unprecedented number of cases of tinea capitis. The authors of this paper have submitted a plan with two objects in view. The first is to ascertain how many children are infected and the second is to have these children treated adequately. In my opinion it is a useless gesture to open up a so-called ringworm clinic in one of the city hospitals and just apply some local remedies to the scalp. We know and so do all dermatologists who have had experience know that the best treatment for ringworm of the scalp caused by the Microsporon audouini is with x-rays. This method of treatment has stood the test of time and has proved to be successful in practically all cases Other methods which have been sugtreated. gested and which are untried are purely experimental and the percentage of successful results is small.

When x-rays are properly administered one should obtain complete and uniform temporary depilation and a complete cure in practically all cases. Permanent depilation should never occur. Bad results occur occasionally. They are caused by the improper administration of the x-rays. The technic is simple and is very easy to learn. One should take the trouble to learn to administer the x-rays properly and to properly calibrate the x-ray apparatus against biologic and physical standards.

I firmly believe that segregation of infected from noninfected children is absolutely essential. The disease is spread from an infected child to one who is not infected. The infected children should immediately receive an epilating dose of x-rays according to the five-point method of Adamson-Kienboeck.

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At the New York Hospital during the past year we have had 175 cases of ringworm of the scalp. Of this group, cure was obtained in 95 per cent, the average time for cure being two and a half months. We believe that grease containing 5 per cent ammoniated mercury should be applied after the x-ray exposure, reapplied each day, and no washing of the hair should be allowed until depilation begins.

It is our considered opinion that children with ringworm of the scalp should not attend classes with normal children. Contrary to the expressed opinion of one armchair strategist, there is no lack of availability of x-ray machines in New York City. There may be a shortage of technicians, but this can be overcome if the need is made known and sufficient money is appropriated. Dr. Cipollaro stands ready to train technicians and physicians who wish to become proficient in the administration of x-rays.

We do not believe that thallium acetate is a safe drug, because a mistake in the dosage may result in death, and even if it is given correctly it is apt to result in damage to kidneys and other organs. We are in sympathy with experimental procedures which may in the future assist in a more speedy cure and be particularly adapted to the treatment of patients in locations where competent roentgen therapy is difficult to obtain. We do believe that at

present there is no adequate and proved local therapy, even with the utilization of penetrating bases or the use of the newer parasiticides, which offers any hope of speedy cure in a high percentage of treated patients.

At this time, in the active treatment of patients with tinea capitis, chief reliance should be placed on the use of roentgen rays. We believe that the other measures advocated in this paper will materially assist in curbing the epidemic.

#### ELECTROCARDIOGRAPHY COURSE IN CHICAGO

The cardiovascular department of Michael Reese Hospital, Chicago, will offer a full-time intensive course in electrocardiography for two weeks—August 21—September 2, 1944. Dr. Louis N. Katz, director of cardiovascular research, will be the instructor.

This is an intensive course offered to the general practitioner and internist. There will be discussion of the principles of the construction and use of electrocardiographic machines, and their demonstration. There will be sessions on interpretations of electrocardiograms, illustrated by lantern slides, and practice by the student with unknown records. Routine records taken during the time of the course will be shown and discussed. Emphasis will be placed on chest leads and on the importance of the

electrocardiogram in coronary sclerosis and myocardial infarction. The mechanism and interpretation of cardiac arrhythmias will be developed. Bedside diagnosis and management will be touched upon.

As group and individual instruction will be given, the course is open to both the beginning and advanced student in electrocardiography. It is planned to individualize the course by group conferences so that at the end of the period each student will be capable of properly interpreting routine electrocar-diograms. In order to accomplish this purpose the class will be limited in number. It is imperative, therefore, that reservations be made early.

For further information address Michael Reese Hospital, Cardiovascular Department, 29th and Ellis Ave., Chicago 16, Ill.

#### QUALIFICATIONS FOR VETERANS' UNEMPLOYMENT BENEFITS

In order to qualify for unemployment insurance benefits under the recently enacted veterans' benefit law, a person must be unable to obtain employment and ready, willing, and able to work, according to Milton O. Loysen, Executive Director of the Division of Placement and Unemployment Insurance of the New York State Department of La-

"Our field offices have reported that many veterans who are employed, as well as men on active duty, have endeavored to claim benefits in the mistaken belief that such payments are in the nature of a State bonus," Mr. Loysen said. "This, of course, is not the case. The veterans' benefit program is designed to provide financial assistance for ex-servicemen and women only while they are seeking employment.

"Men and women released from active duty in the United States armed forces on or after December 7, 1941, may qualify if they resided in this State for at least ninety consecutive days immediately prior to induction, if they now live here and are looking for work here, if they are not entitled to a Federal total disability allowance or unemployment benefits from another state, and if they are able to work but unable to obtain employment.

"Application for benefits should be made at the field offices of the Division of Placement and Unemployment Insurance in the various cities through-

out the State."

#### DR. LIPSCHUTZ WINS SECOND MAYER AWARD

For his research on the growth of animal cells, with particular reference to cancer, Dr. Alexander Lipschutz, director of the department of experimental medicine of the Chilean National Health Service at Santiago, Chile, has won the second \$2,000 prize given by Dr. Charles L. Mayer and administered by the National Science Fund of the National Academy of Sciences.

Dr. Lipschutz has been studying the fibromyomas of the uterus which can be induced in guinea pigs by the injection of certain sex hormones of the fe-

The growths closely resemble the fibromyomas, or "fibroids," which occur in women during the childbearing period.

He and his associates have sought means to prevent the occurrence and enlargement of the growths while the hormones are still acting and recently they have found that some other hormones from other organs have this effect, as do also certain substances

synthesized by chemists.

The award was presented at the annual meeting of the National Academy of Sciences in Washington, D.C., in April.

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developed diffuse pulmonary edema which cleared gradually with aminophylline and intravenous digitalization. Following this episode the patient began to bring up sputum which was purulent at first and later frankly bloody. The signs in the right lung, particularly the upper lobe, persisted throughout. Without any marked change in his already critical condition, the patient expired on the sixteenth hospital day.

#### Discussion

Dr. Max Trubek: The clinical history was characteristic for the diagnosis of myocardial infarction; the poor muscular quality of the myocardial sounds was confirmatory. The electrocardiographic changes were of the acute T1 and T. variety, denoting anterior left ventricular involvement. The blood pressure was persistently low after its initial drop, although the pulse pressure was never less than 20 mm. The accelerated heart rate was of poor prognostic significance. The temperature course showed periodic elevations; it never returned to a normal base. There were periods of hemoptysis and signs of pulmonary infiltration involving the upper lobes. During the first of such episodes, improvement seemed to follow the use of sulfadiazine. It seemed best, however, to consider that the pulmonary complications were secondary to the heart disease and were due to multiple infarctions. The occurrence of pulmonary infarction subsequent to embolization is often characterized by a brief febrile course.

The broadening of the QRS complexes on the electrocardiogram, interpreted as branch bundle block, seemed to lend support to the idea that we were dealing with infarction of the anterior interventricular septum so that a source of emboli on the right side of the heart became a more definite probability to explain the pulmonary infarctions. The electrocardiogram did not show any of the changes such as could accompany lung infarctions. Perhaps the latter were of too small extent to reveal right ventricular strain, or else the changes due to myocardial infarction were too dominant.

The nonprotein nitrogen value was elevated to 90 mg. per cent on the second hospital day, rose to 180 mg. per cent, and thereafter dropped irregularly to 75 mg. per cent before death. There were, however, no confirmatory evidences of renal failure—the creatinine values were only slightly elevated. The carbon dioxide combining power of the blood was never lowered—the values were all greater than 50 volumes per cent. Serum calcium and phosphorus levels were normal when taken during the second week. One sees here a striking distinction between the anoxemia of extrarenal origin and that which

occurs when there is a disturbance of the acidbase balance (mechanism) in actual renal failure. The repeatedly high urinary specific gravity readings confirmed our belief that the renal parenchyma was not damaged. It was difficult to measure urinary output because of incontinence, but it was seemingly larger than one would expect where the essential fault was diminished cardiac force. It is not unusual for the nonprotein nitrogen value to rise when the blood pressure and pulse pressure fall subsequent to myocardial infarction. There is usually a return to normal when cardiac force and glomerular filtration improve. I do not believe that the abnormal values are the result of necrotic myocardium, or, in this patient, that they were the result of pulmonary infarctions. It is well to recognize that the cause of the nonprotein nitrogen retention is diminished left ventricular force. One need not force fluids; indeed, infusions are contraindicated, in distinction from the case of true uremia. Those measures which improve the pulse pressure will eventually result in reduction of the nitrogen retention. In this patient the nitrogen elevation was recorded before the administration of sulfadiazine and there was never crystalluria or hematuria. It does not seem that use of this drug influenced the selective retention of nonprotein nitrogen. Sulfadiazine was given, 1 Gm. every four hours for three days; at that time the blood drug level was only 8.6 mg. per cent; in true disturbance of renal function the blood retention would have been very much higher.

This case also demonstrates a clinical fact which we have observed in myocardial infarction—the occasional unreliability of the erythrocyte sedimentation rate as a diagnostic procedure. The values frequently do not begin to rise above normal until after the third day in a patient who has myocardial necrosis already obvious by other criteria. In this patient the values were 15 mm. and 13 mm. per hour on the ninth and eleventh days of his illness. The leukocyte count is a more constantly reliable diagnostic index, especially early in the course of this illness.

Dr. Arthur L. Washburn: There was no question of the diagnosis of coronary occlusion. Sulfadiazine was ordered because of the continued rise in temperature and the presence of purulent sputum, which signs were suggestive of pneumonitis superimposed on pulmonary infarction. It was to be noted that the azotemia subsided in spite of the sulfadiazine therapy. The signs in the right upper lobe seemed like consolidation and I do not think any harm was done by the administration of sulfadiazine.

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# Diagnosis

# CLINICOPATHOLOGIC CONFERENCES

FOURTH MEDICAL DIVISION OF BELLEVUE HOSPITAL

Date: April 20, 1944 Conducted by: Dr. Max Trubek

Dr. Mary B. Finck: A 59-year-old white apartment-house superintendent was admitted to the emergency ward on February 23, 1944, complaining of burning precordial pain and palpitation. The attack began six hours before admission while the patient was walking. The pain was severe, radiated somewhat down the left arm, and was accompanied by profuse perspiration, nausea, and moderate dyspnea. During the two years prior to admission the patient had suffered about a dozen such attacks of palpitation, pain, and dyspnea, apparently caused by exertion.

The past history and family history were noncontributory. There was a previous admission for hernia repair in 1940, at which time the blood

pressure was 170/94.

On admission the temperature was 99.2 F.; the pulse, 88; respirations, 22; and the blood pressure, 130/90. The patient was in obvious pain, with moderate dyspnea and orthopnea. His skin was pale and clammy. The eyes, ears, nose, and throat, including fundi, appeared normal. The neck veins were distended and filled from below. The lungs showed a few moist rales at the right base. The heart was moderately enlarged and showed many premature contractions. There was a blowing systolic murmur at the apex. The sounds were of poor quality. During the examination the patient had several attacks of palpitation, transitory in nature, during which the pulse dropped to 40 per minute and was regular. The liver extended one fingerbreadth below the costal margin and was tender. There was no peripheral edema.

Laboratory Data.—The red blood count was 4,600,000, with 12.5 Gm. of hemoglobin. The white blood count was 14,150, with 80 per cent polymorphonuclears and 12 per cent lymphocytes, 6 per cent stab forms, and 2 per cent monocytes. Urinalysis showed a specific gravity of 1.036; albumin, 1 plus; glucose, 2 plus; and a few white blood cells on microscopic examination. The blood nonprotein nitrogen was 90 mg. per cent; creatinine, 1.76 mg. per cent; and the blood Wassermann was negative. On February 26, the red blood count was 5,300,000, with 16.5 Gm. of hemoglobin; the white blood count was 22,700 and the urinalysis showed 1

plus albumin, 1 plus glucose, and the microscopic examination showed granular casts. On February 28 the blood nonprotein nitrogen was 165 mg. per cent; creatinine, 2.5 mg. per cent; the blood sulfadiazine level, 5.8 mg. per cent; and the white blood count, 10,700. On February 29 the blood nonprotein nitrogen was 180 mg. per cent; on March 1, 129 mg. per cent; creatinine. 2 mg. per cent; and the blood sulfadiazine level. 8.6 mg. per cent. On March 2 the blood nonprotein nitrogen was 100 mg. per cent; the creatinine, 1.76 mg. per cent; carbon dioxide combining power, 50 volumes per cent. The erythrocyte sedimentation rate at this time was 15 mm. per hour; the red blood count, 4,730,000: hemoglobin, 1.30 Gm.; and the white blood count, 15,400. On March 6 the blood nonprotein nitrogen was 64 mg. per cent and the carbon dioxide combining power was 60 volumes per The blood calcium was 9 mg. per cent; the phosphorus, 3.43 mg. per cent. The urinalysis showed a specific gravity of 1.022, 1 plus albumin, no glucose, moderate hyaline casts, and a few red blood cells. On March 7 the blood nonprotein nitrogen was 75 mg. per cent. Serial electrocardiograms showed progressive acute changes in leads I and IV.

Course.—The temperature showed a gradual rise to 103.8 F. on the fifth day, dropped to normal coincidentally with the administration of sulfadiazine, and then rose again irregularly to 102.4 F. on the day before death. The pulse rate varied between 88 and 120 per minute, corresponding to the temperature. The blood pressure dropped to 85/50 very soon after admission. Subsequently, the lowest reading was 74/50, on the fourth day; the highest, 104/80 on the sixth day; and the final reading was 80/60 on the day before death. The patient was extremely weak and often irrational throughout his illness. He was incontinent, but the estimated urinary output was moderately good. Oxygen and sedation were necessary almost constantly. On the fifth day the lungs still showed only a few rales at the bases, but in view of the temperature of 103 F., sulfadiazine was started and continued to 19 Gm. over the next three days. Signs of patchy pulmonary involvement, particularly in the right lung, became evident by the seventh day. On the ninth day the patient

developed diffuse pulmonary edema which cleared gradually with aminophylline and intravenous digitalization. Following this episode the patient began to bring up sputum which was purulent at first and later frankly bloody. The signs in the right lung, particularly the upper lobe, persisted throughout. Without any marked change in his already critical condition, the patient expired on the sixteenth hospital day.

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DR. HENRY C. FLEMING: I doubt whether the sulfadiazine made any difference one way or

the other; it probably did not help, although the patient may well have had patches of broncho-pneumonia.

Dr. Arnold Koffler: The nitrogen retention is very interesting. We all have seen elevation of the nonprotein nitrogen in coronary thrombosis and in any condition where shock is present, but the persistence was unusual in this case. The evidence against actual kidney involvement is strong. Since most mural thromboses occur in the left ventricle, it is difficult to understand how the pulmonary infarction arose on that basis.

The electrocardiogram did not show changes characteristic of pulmonary infarction.

Dr. Max Trubek: We thought that the infarction was in the septum, with extension to the right side, so that mural thrombi may have formed on both sides. The electrocardiogram eventually did show branch bundle block.

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DR. CHARLES H. NAMMACK: Palpitation is a

"heart consciousness" and is not necessarily a disturbance in heart rate or rhythm.

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#### Presentation of Pathology

DR. ROBERT POPPITI: At necropsy, the body was that of a 59-year-old well-nourished white man. There were no external findings of note. Each pleural cavity contained 1,000 cc. of clear serous fluid. The cardiac area was enlarged.

The heart was generally enlarged because of hypertrophy and dilatation—it weighed 560 Gm. There were no thrombi within the right auricular appendage. The endocardial lining of the right ventricle was smooth, glistening, and transparent. The underlying musculature appeared natural. Adherent to the endocardial surface of the left ventricle in the region of the apex and interventricular septum was a mural thrombus measuring 3 by 5 cm. The heart muscle underlying the thrombus was soft and necrotic. Both main coronary arteries exhibited a severe degree of atherosclerosis with narrowing of their lumina 2 cm. distal to their origin. The anterior descending branch of the left coronary artery was completely occluded by a partially organized thrombus.

Both lungs were enlarged. The right weighed 750 Gm. and the left weighed 620 Gm. Several fresh infarcts were found in the upper and lower lobes of both. The largest measured 5 by 5 by 4 cm.; the smallest, 2 by 3 by 2 cm.

The liver weighed 1,850 Gm. Its cut surfaces presented a "nutmeg" appearance. Examination of the remainder of the organs revealed no noteworthy changes.

## Microscopic Examination

Heart.—Examination of many sections of the heart revealed a thin film of fibrin on the epicardial surface. The myocardium bordering on the epicardium showed several changes. There was a diffuse replacement of muscle fibers by loose fibrous connective tissue. Large areas of necrosis were noted throughout. These were surrounded by hemorrhage and polymorphonuclear leukocytes. Adherent to the left ventricular endocardium was a large mural thrombus

consisting of tall irregular columns of fused platelets separated from one another by strands of fibrin. Several sections of the right ventricular wall revealed no changes in the myocardium and endocardium.

Coronary Artery (Anterior Descending Branch of Left Coronary Artery).—The lumen of this vessel was narrowed and totally occluded by a thrombus showing organization about its periphery. The intima was thickened because of the presence of several atheromatous plaques containing calcium deposits. The underlying media was thin, atrophic, and contained several vessels, partially surrounded by lymphocytes. The adventitia was natural.

Lungs.-Scattered throughout the lungs were several large groups of alveoli filled with red blood cells. The intervening alveolar septa were necrotic. Bordering about these were other alveoli filled with red blood cells with normalappearing alveolar septa. In the vicinity of one of these infarcts a large vessel was noted which was totally occluded by a thrombus. Additional sections of the right upper lobe revealed it to be filled with a fibrinopurulent exudate.

Liver.—The hepatic cells in the vicinity of the efferent veins were degenerated, thin, and widely spaced. The sinusoids in these areas were correspondingly wide and filled with amorphous eosinophilic débris and red blood cells. Toward the portal areas the cords resumed their natural appearance.

Microscopic examination of the remaining organs revealed no noteworthy changes.

### Anatomic Diagnoses

Atherosclerosis of the right and left coronary arteries with thrombosis of the anterior descending branch of the left coronary

Myocardial infarction-anterior wall and anterior portion of interventricular septum.

Mural thrombus, left ventricle.

Myocardial fibrosis, left ventricle.

Atherosclerosis of aorta.

Pulmonary thrombosis with infarction, bi-

Pneumonia, right upper lobe.

Bilateral pleural effusion.

Chronic passive congestion of liver and spleen.

#### BRITISH NOT PROUD OF PANEL SYSTEM, AMERICAN DOCTOR SAYS

Thousands of words have been written, perhaps many of them wasted, in discussion pro and con concerning the health insurance of Great Britain. Frequently the argument waxes so warm that the sub-ject is accorded more importance than would appear justified if we consider the following comment from one of our own observers:

"I am very proud of my professional liaisons here. The upper crust of British medicine is fully equal to ours, though the general average may not be quite as

high.
"Incidentally, I have never yet met an English
"member of a panel. My secretary, who is typing this letter, does not even know what it means. The panel system, apparently, is that in which a few poor-salaried doctors take care

of a large practice of indigent and ignorant pa-

"You insult any Englishman by asking him if he belongs to a panel. Beveridge or no Beveridge, this country is going to practice private medicine after the war, and up to now, if we admit that compensation work is 'state medicine' at home, England has less state medicine than the United States. Intelligent people in Great Britain insist upon selecting

their physicians, and always will."

The writer of the above, whose name we omit for military reasons, is no casual or fly-by-night observer, but a Rocky Mountain physician of highest attainments, who has known Britain in peace and through two wars. We prefer his word over that of some of our professional uplifters in Washington who would have us believe that for Englishmen generally the sun rises and sets in the so-called panel system of politically managed health insurance.-Rocky Mounlain M. J., April, 1944

### CATIONIC SOAP

The term "cationic soap" is applied to synthetic detergents which are excellent germicides and are also effective skin cleansers when employed in aqueous solutions at about 1 per cent concentration. In the course of studies on the effectiveness of these agents for rapid degermination of the hands, Miller and his colleagues discovered that they deposit a

nonperceptible film on the skin. This film retains bacteria underneath it and is resistant to mechanical trauma; whereas the outer surface exerts a strong germicidal action, the inner surface of the film has a low bactericidal power. These observations introduce a further complication into the evaluation of products of this type.—J.A.M.A., March 11, 1944 the other; it probably did not help, although the patient may well have had patches of bronchopneumonia.

Dr. Arnold Koffler: The nitrogen retention is very interesting. We all have seen elevation of the nonprotein nitrogen in coronary thrombosis and in any condition where shock is present, but the persistence was unusual in this case. The evidence against actual kidney involvement is strong. Since most mural thromboses occur in the left ventricle, it is difficult to understand how the pulmonary infarction arose on that basis.

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These facts are brought to us, especially in our lives as doctors, in the history of the acquisition of our scientific knowledge with its applicability to the people, and in the long battle for the prevention and eradication of disease. To the superficial mind the character of our progress, the laborious steps of its advance, and the solid foundation of our knowledge are easily overlooked or forgotten in our present accomplishments. We say-and the public accepts it, without apparent emotion or recognition—that within the past twenty-five years the mortality rate in this country has been reduced 50 per cent; that the death rate from the great white plague has been lowered by 60 to 70 per cent; that diphtheria and typhoid groups of diseases have been or can be eradicated; that no serious epidemics have occurred in our land; that 97 per cent of our war-injured recover and many infectious diseases, such as the pneumonias and meningitides, are deprived of their terrors; that the anemias and diabetes are being overcome; that chemotherapeutic applications, the blood transfusions and the plasmas, and so many other lines of progress show that the average of skill and intellectual ability of the doctor is at its highest peak.

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With improved means of transportation of doctors or of patients or of supplies by automobile, by rail, and by airplane; with the rapidly increased modes of communication by the press, by radio, by air mail, our most recent advancements in medical knowledge are diffused and quickly become the possession of all.

There are many sections of the country in which, because of partial isolation, scarcity of people, and low general income, there are not at hand sufficient medical facilities. There are many parts of the country to whose people the costs of sudden, unprovided-for illness become a hardship, and treatment sometimes, though rarely, is postponed.

Into such a picture does Federal government It proposes a method of compulsory wage withdrawal insurance to provide all care for 115 to 125 million of the 135 million people in the United States. Its primary object is not for the really completely indigent-for them no provision is made more than at present exists. It would provide for all wage earners, though some of them have annual wages of \$3,000 to \$100,000. and many of them have neither asked nor needed such assistance. At no time does any sponsor of this socialization of medicine criticize unfavorably the present quality of medical knowledge or skill; nor would he, knowingly, desire to retard its progress. The solution of the problem to him is purely economic, can be reached solely by financial ways; and, undaunted by the apparent obstacles, he sees in central government control the specific remedy—the panacea for all medical social ills.

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S. Delivered at the 138th Annual Meeting of the Medical Society of the State of New York, New York City, May 9, 1944.

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Delivered at the 138th Annual Meeting of the Medical Society of the State of New York, New York City, May 9, 1314.

the doctor, the hospital, the institutions of research and education-to a controlling administrator, from whose decisions there could be no court appeal-whose advisers would be of his selection and actually under his authority! The distribution of billions of dollars to hospitals, schools, or doctors would not only be fixed by him but could be changed-increased or diminished or methods altered-whenever he deemed it advisable. As the representative of the government he would stand between the patient and the doctor and would have, through monies at his-disposal, the power to dictate the sufficiency of laboratory aids, the amount of hospital treatment, and to establish regulations for the admission and discharge of hospital patients. It must be remembered that government officials may and have proposed and urged on legislative bodies laws on medical matters and never sought the assistance or advice of any doctor in the United In the actual administration of one such law, one sponsor of this bill publicly announced that all the details would be conducted by the present organization of social security offices, its subdivisions, and the enlarged staffs thereto attached.

The present Emergency Maternal Infant Care Act well illustrates the position of government as a third party between the patient and the physi-The amount of service and the number of consultations of the pregnant woman with her physician; the included compulsory care of any intercurrent, nonrelated illness; the conditions associated with the confinement itself, with complications, subject to its rules and restrictions on additional professional assistance; the responsibility for after-care, including directed examinations after six weeks; the medical service that may be given to the infant in any week of serious illness during the first year of life, by what kind of doctor or clinic it may be prescribed; the number of and indications for prophylactic treatments that may be given during the first year or life; the required reports and the amount of payment -these, all these, are fixed by a central government bureau in Washington and dictated to all the States of the Union. The freedom permitted to any state in the administration of the bill is very little, and demonstrates anew one application of the much favored "grant-in-aid method." How long this measure would be continued after the war, how much wider would be the range of its application, is uncertain. Already, for the coming years, added classes of beneficiaries have been included and the appropriation for the year beginning next July 1 have been placed at 43 million dollars.

To our returning veterans there is no limit to the care that should be given. Service of the

highest quality and to meet every possible need should be ever available and easily accessible. The medical profession is proud of the efforts that have already been made and the results so far attained, and pledge their unlimited cooperation and unrestricted assistance to the medical authorities of the armed forces in their splendid work. It is now proposed that these benefits for veterans should be extended to all the members of their families. That policy was in effect for many years after World War I, and the facilities constructed for veterans were in a great measure devoted to the members of the families. Investigation has shown that the number of returned veterans and the members of their families that would be eligible for such government medical care in the next twenty years would reach 40 There must be recognized a distinct socialistic trend in all these objects of a central government. In this year so far 33 million dollars have been appropriated for construction of twenty thousand hospital beds; 115 million dollars for community facilities including hospitals, in addition to its present appropriation, is authorized under the Lanham Act; a proposed bill, S. 1767, now reported on the floor of the House of Representatives, would appropriate several hundred millions more for additional hospital facili-Without waiting for action on the Wagner-Murray-Dingell-Bill, which would give him 11 million dollars for the purpose, the Surgeon General of Public Health asks an extra 20 million dollars annually to assist states and their political subdivisions in establishing and maintaining adequate public health services. Ten millions a year extra is urged in this bill for his work in tuberculosis, and an unstated number of millions for distribution by the Surgeon General as grants to institutions and individuals for research projects.

Medicine knows better, perhaps, than any other group, the areas in this country with insufficient hospitals and laboratories, where there is need for more doctors to engage in general and special work. It knows that in many places the hospital, nursing, and medical costs of sudden, unprovided-for, prolonged illness find the patient financially unprepared. The apology offered to explain and justify the ever increasing expansion of the central government in the social medical field is that the people in their dire needs are clamoring for help and that certain social security workers and officeholders are simply responding to this incessant pressure.

A recent very careful survey by Opinion Research of the people of this country disclosed that 95 per cent of the people wished no aid in payment of the bills of ordinary sickness—that 77 per cent of the people believed doctors' fees were

fair and reasonable but that for prolonged, expensive costs of sickness 64 per cent believed some method of payment-not monetary assistance-should be arranged; it further showed that 81 per cent opposed Federal medical care of the indigent, while 84 per cent objected to any Federal compulsory insurance plan that would involve a 6 per cent pay-roll deduction. This survey but confirms the knowledge that doctors already possessed. For many years, through their societies, they have proposed, sponsored, or organized prepayment plans to meet the local needs. They have cooperated in the hospitalization arrangements which have solved this costly problem for millions of people; with industrial groups, in companies, or of employees; with cooperative groups, with plans of labor unions and of regular insurance companies, and many others. The voluntary prepayment plans, although now providing for more than a million subscribers, have not yet been developed to their full usefulness; their very many benefits are not yet well known and have not received the enthusiastic support they deserve. Our Council Committee, with our Planning Committee, has presented reports on these plans which are of great interest and show great progress to this convention. I look forward to great results from them.

Our Planning Committee, whose splendid report of its first year is before you, has made an auspicious beginning. Its studies of conditions and needs of this State and the remedies so far suggested carry great promise. It will study further the roles of the State government in medical and health matters, of industry, of medical societies, and of social groups. The education of the people at large to take active part in these subjects is necessary and valuable, as the enlightened public opinion on one recent government bill has shown. This education in the progress, the achievements, the triumphs, and future possibilities of medicine should be intensified. There are in this country more than 12 million followers of the cults and many who are indifferent to and careless of the opportunities at hand for better health. Some of these (misguided) people are honest in their beliefs, some with sufficient intelligence to know better do not possess the real facts, and only the reiteration of what medicine is doing and can do will teach them its real benefits. The truthful medical reports and records of this war, furnished daily by proper authority, of the quality of service being rendered and of the results obtained in the medical care of our forces in all parts of the world, in all climates, in jungles or deserts, on sea or land, in sections infested by organisms of virulent infectious disease; of prevention of sickness as well as the treatment of sick or injured; and of restoration

to health and of rehabilitation should be made known to all our home people; the knowledge of the kind of care our boys in service receive and the medical efforts made for their welfare is of great support to the soldier, as is the feeling that as much care is available for his home folks. During these times the people have seen more clearly the need of the doctor in their lives. They have noted the effects of the absence of so many from their communities, their hospitals, and their industries; and while the public has not suffered the loss of any essential need, the return of their physicians will be gladly welcomed.

#### Summary

There is an important place for the central government in the care of the health of the people. Medical responsibility for such needs is scattered through some fifteen different bureaus. For very many years the medical profession, to secure efficiency, has urged the consolidation of all the health groups except those of the Army and Navy under one head, and that he have the authority of a cabinet minister.

There are lines of work in the health of the public which go beyond the boundaries of any state and necessarily must have such direction as our Public Health Service and its Surgeon General.

There are communities so deficient in medical facilities and so lacking in financial resources that monetary help should be given by the Federal government, without imposing on them any subsequent central bureaucratic control. This the Lanham Act can do and is doing.

When, however, the Federal government continues to seek the care of the individual's health and controls that care and that individual by law, by compulsory directives and mandatory regulations which, in the knowledge of doctors, are known to be detrimental ultimately to the patient and to the progress of medical science, then we have a bounden duty to protest, and to make our protest effective by every lawful means. There are none of these proposed health insurance laws that cannot be administered with more satisfaction to all, with less danger to the quality and progress of medicine, and with more economy, through the individual states and their political divisions.

We, too, as citizens, are much alarmed at the vast additional centralized power these bills would give the bureau at Washington. To it, under the proposed compulsory laws, more than 80 per cent of the people would be directly subjected.

Medicine is a treasury of priceless resources, accumulated through the years—yes, the centuries—never decreasing but ever growing more

opulent. The more that it is distributed, not less is it reduced in any way. To us, its caretakers, is given the privilege of spreading without stint its great benefits. And we will preserve

that treasure, defend it against destruction, protect it against all assailing forces, and transmit it still further enriched with the contributions of our own generation.

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THE Report of the Council Committee on Work-men's Compensation is really a resume, not only of the substantial contributions made by the present committee, but also of the work of this committee

and the State Society Bureau during recent years.

A close study of this report to the Council reveals that its members possessed a very comprehensive knowledge of the Workmen's Compensation Law. knew well how the law functioned in reality, and, in addition, had an acute awareness of how it should have been modified in order that it might more com-

pletely accomplish its objectives.

The outstanding work of a former committee of physicians, under the chairmanship of Dr. Eugene Pool, resulted in the amendments to Section 13 of the Workmen's Compensation Law in 1935. All of their recommendations, unfortunately, were not enacted into law. Had their recommendations been fully enacted, much of the bad odor liberated by the recent probers would never have been generated. What this committee of physicians did accomplish, however, was constructive, forward-looking, and of great value. The medical profession was given authority, great responsibility, and the unique power of self-discipline.

The magnificent response of the medical profession to the great obligations imposed upon it by the 1935 amendments is a matter of history. The compensation committees of the county societies have carefully and conscientiously discharged their duties, and your reference committee subscribes to a statement in the report which says: "We believe it is not too much to assert that no interested parties to the Workmen's Compensation Law, not even the Labor Department, have made a greater contribu-tion to the public welfare than the medical profession

through its agencies."

It may be said also that all of the great work done by the various county societies has been but the lengthened shadow of the Workmen's Compensation

Committee of the State Society and of its Bureau.

The prodigious amount of work done by this Council Committee is a monument of honor to the men who have made up the committee and the bureau through the years.

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Department of Labor, the insurance carriers, the employers, and the workingman.

It has been through the untiring efforts and specialized knowledge of the committee and of the Bureau of Compensation that organized medicine, through its component societies, has functioned so well. The rating of thousands of physicians who wished to qualify under the provisions of the Law has been a task of great magnitude, and it is the opinion of your committee that it has been done efficiently and conscientiously. The few complaints that were made by the physicians came from those who thought their ratings were not sufficiently high.

The Bureau, in addition, has ably fought for the legal and financial rights of the physicians under the Law as amended in 1935, against the innumerable assaults that were made upon these rights. Free choice became more than a legal fiction, at least in upstate New York. Fees were paid promptly, special services were more adequately rewarded, and the arbitration of disputed bills was efficiently handled. The medical profession of the State of New York owes a great debt to this Bureau.

Your Council Committee and Bureau have clearly recognized the evils that were inherent in some of the ambiguities and redundancies of the amendments of 1935, and have frequently sought by all means to obtain amendments to the law, to clarify and simplify the statutes so they could be more effectively administered, to the end that the medical profession could more effectively carry out its responsibilities, but to little or no avail.

On January 13, 1944, your Council Committee presented to the Council certain recommendations to be presented to the Moreland Act Commission which was then functioning. These recommendations were approved by the Council. More of this

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speak on 'Blood and Blood Substitutes: Their In-

dications and Uses."
On August 20 Dr. Roscoe Severance will speak on "Wounds of the Extremities and Their Management."

dustrial Commissioner requesting him to ask the Attorney General whether there was any provision in the State statutes to enable the State Society to exercise these powers. Finally, on May 3, 1943, the Attorney General gave the opinion that we have mentioned. There is nothing in the Law which states that the Compensation Board must initiate charges against a bureau or a physician. It states merely that it shall hear such charges, determine guilt or innocence, and report its findings to the Industrial Council. The first list of physicians given out by the Moreland Act Commission contained the names of over 1,300 physicians who were accused of unethical conduct. In all, the names of 3,000 were given out. These physicians were under the jurisdiction of the compensation boards of Bronx, New York, Kings, and Queens.

These names were released from time to time, the last not obtained until January, 1944. All of the physicians whose names appeared on the first lists were heard by the societies and either admitted or denied their guilt. For instance, in Kings County, of 1,140 physicians that were named by the Moreland Act Commission, 380 are in the Army and could not be heard, 400 have pleaded guilty, and the 160 who pleaded not guilty have been tried. It was arranged that all who denied their guilt would have a final trial as soon as all the physicians named had an opportunity to be heard in a preliminary hearing. After a great many had been heard the counsel of the New York County Society raised the question of the legality of the proceedings, unless charges were first preferred by the Industrial Commissioner, and it was not until April, 1944, that these formal charges were made by the Industrial Commissioner against all of the accused.

Up to the present time the various county society boards of the metropolitan area have heard over two thousand physicians—truly a tremendous task, and indicating a capacity and a determination that they were accused of lacking.

All of this was done without undue delay, considering the legal questions raised by the counsel for the New York County Society and by others as to the authority of the medical societies to act.

The Department of Labor, as was their apparent right under the Law, held independent hearings to try certain accused physicians. When they revoked the license of one physician to practice under the Compensation Law, he carried it to the Supreme Court, which held that the Department of Labor had no such power.

The medical societies found themselves enmeshed in a web of legal complications, especially if the accused pleaded not guilty and further legal action was warranted. But to say that your Bureau or the medical societies of the metropolitan area were lax or timid, once they were assured of any power, is absolutely untrue.

Your reference committee has also studied the steps taken by the committee on Workmen's Compensation of the Medical Society of the State of New York concerning the Moreland Act Commission's investigations. This report is dated April 27, 1944.

It is a documented statement of the aid given by the State Society committee, by your Compensation Bureau, by the presidents of the five societies in the metropolitan area, by the chairman of the compensation boards of these societies, to the members of the Moreland Act Commission, not only in the investigation, but also by their many and valuable recommendations for the improvement of the

administration of the Compensation Law. Many of these recommendations are embodied in the new Law, and it is beyond the comprehension of your reference committee how this same commission could in any way censure these gentlemen.

We believe that the physicians composing the compensation boards of the county societies throughout the State—and, of course, that includes those of the Bronx, New York, Kings, and Queens—were in general conscientious, diligent, and trustworthy. Although the rest of the county societies retain their former status, with new powers, under the Law, we feel that the substitution of a three-man medical practice committee for the boards of the above-mentioned societies in Greater New York is an affront to the honor and dignity of the medical profession, and that every honorable effort should be made to modify the new law to the end that these boards be restored to their proper sphere.

Professional honor is a very personal matter with the men who composed these four boards, and it is our opinion that they should be permitted to function under the new powers granted by the Legislature. We also believe that it would make for better administration of the medical aspects of the Compensation Law.

Your Council Committee, as we have stated, made certain recommendations to the Moreland Act Commission, by the authority of the Council.

Your reference committee concurs in their validity and wisdom, and although the greater number of their recommendations were recently enacted into law, the few that have not been should be the subject of continued study by this committee, and again advocated, if the operation of the newly amended law would indicate their necessity.

The Moreland Act Commission has enacted into law, which will become operative in June, 1944, many changes that your reference committee wishes to point out. Many of these changes were recommended by your Council Committee to them on January 13, 1944. The essential changes, having not been enacted at that time, obviously were not discussed in the report of the Council Committee, but your reference committee thought it incumbent on it to bring matters up to date. They are as follows:

1. The Industrial Council now consists of nine members instead of fifteen. Three members will be physicians and are called the "medical appeals unit" of the Council. They shall consider all matters connected with the practice of medicine submitted to them by the commissioner and the industrial board, and shall prescribe rules and regulations to govern the procedure of investigations and hearings by medical societies of charges against authorized physicians, laboratories, or bureaus.

2. The compensation boards of the medical societies of the Bronx, New York, Kings, and Queens are abolished, and in their place is set up a single medical practice committee of three outstanding physicians. The compensation boards of the other county societies remain the same as before. The three-man medical practice committee of Greater New York will have the same power as other societies in authorizing physicians, laboratories, and bureaus. In addition, they will be the arbitration committee and the hearing and investigating committee of all charges against physicians, laboratories, or bureaus in the teres.

physicians, laboratories, or bureaus in that area.

3. The method of arbitrating disputed bills in other sections of the State has been modified so

One would imagine from the newspaper accounts of recent months that the main culprit under investigation by the Moreland Act Commission was the medical profession. It is a fact, however, that not only a portion of the medical profession but also a portion of the legal profession, some insurance carriers, some employers, the State Insurance Fund, licensed representatives of the workingman, and the administrators of the Department of Labor itselfall were excoriated in the report to the Governor, and many changes were made in the Law which were designed not only to correct evils that had arisen in medical administration but also to curb the very questionable activities in all other departments having to do with the administration of the Compensation Law.

It may be, perhaps, that the newspapers considered the finding of medical scoundrels to be news, the inference being that the finding of all the other scoundrels in the administration of the Law had no

news value.

The report of the Moreland Act Commission revealed two outstanding medical evils: one con-cerned the commercial laboratories, x-ray and others, supply houses for medical appliances, suppliers of oxygen, etc., and the nefarious financial relationship that existed between them and many physicians; second, the activities of many members of the medical profession were exposed, proving them to be without either honesty or professional honor.

A few of the latter formed rings with law-yers and licensed labor representatives, aimed at perverting the very law itself and depriving the workingman of his just rights. Fee-splitting, bribery flourished on every side.

The Commission, in addition, placed the blame on the compensation boards, especially on four in Greater New York, and on your State Bureau for their inaction and neglect in curing these conditions.

Your reference committee feels that this accusa-

tion should not pass unchallenged.

First, as to the commercial laboratories: the proposal that the commercial laboratories be banned was proposed by the Pool Committee, and was included in the original draft of the bill that created the amendments of 1935. This was emasculated through the activities of certain commercial interests, and the way was left open for commercialism in compensation practice. Had the suggestion of the medical profession on this point been enacted into law, the problem of the commercial laboratory, with all of its inherent evils, would have ceased to exist in compensation law. It was therefore legal for them to function under the law, as it was for a certain percentage of the medical profession who, by their general lack of morality, cast a sinister shadow over an honorable profession. We hold no brief for these men. We do not defend them. We do not apologize for them. We condemn them without reservation.

The criticism directed at the compensation boards of the county societies and of your State Bureau by the Moreland Act Commission for their inaction and laxity in curbing these nefarious gentlemen in our opinion is not fully justified, the more so when we see the same commission enact into law a procedure that would give the county society compensation boards a real power and procedure to deal with pro-

fessional misconduct.

The enactment of this law at the request of the Moreland Act Commission is really an admission on the part of the Commission that the capacity and

power of the compensation boards was entirely inadequate to cope with the situation.

Incidentally, it was not until May 4, 1943-eight years after the enactment of the amendments—that the county societies were informed that they were authorized to subpoena witnesses and render the oath to witnesses. We have in this belated interpretation by the Attorney General of the Civil Practice Act an opinion that it is inherent in the law that the compensation boards of the medical societies have that power. This opinion now is even questioned by legal authorities. The opinion indicated, however, that such authority is not contained in Section 13-d of the Compensation Law itself. If the compensation boards had had that definite authority from 1936 on, there would have been no nose-thumbing at the compensation committees of the county societies, and far less nose-holding when the probers went to work last year.

Previous to May, 1943, these boards believed that they had no such power. Without that power any legal investigation committee is helpless. Without a subpoena a man could refuse to appear, and without an oath only his reputation as a liar would be at stake. The boards had no one to initiate charges, no legal investigating committees, no legal advisers—in fact, the boards had no legal teeth

at all to bring down the prey.

To infer that the boards were ignorant of the misconduct so rampant around them would be an insult to their intelligence; that some of them failed to use all the little legal power they had is possible. Knowledge of a crime, and even of a criminal, is one thing, but the serious business of putting a permanent stop to the criminal is still another. To do that, one must have power. And the legal powers of the compensation boards in this serious matter were mythical.

To say that your Bureau and the compensation committees of the medical societies, especially those of Greater New York, were inactive or lax after they were assured of any legal power to try the offenders is, to put it very mildly, untrue. That there was apparent laxity and inaction previous to this was due to the facts contained in the following paragraph taken from the report of your Council Committee on Workmen's Compensation of Janu-

ary 6, 1944:

"For many years we have been advised that we possessed no such power of subpoena . . . . is evidenced by numerous communications to the Industrial Commissioner and from him to us. Specifically, in the year 1937 the Director of Workmen's Compensation of the State Medical Society requested the then Commissioner to issue subpoenas and provide an officer to administer the oath when required or to have investigations made by the Industrial Council of the Department of Labor, which possesses such power. The Commissioner, accepting the general belief that the medical society did not possess the power to subpoena, etc., agreed to have investigations by the Industrial Council, but such investigations were never held. Our own Counsel and others whom we consulted were of the opinion that unless a specific provision was included in the Workmen's Compensation Law (Section 13-d), we did not possess the powers to subpoena and administer the oath without which no successful investiga-tions or trials could be held."

After the appointment of the Moreland Act Commission and the election of a new Attorney General, the Director of your Bureau again wrote to the In-

# Medical Society of the State of New York Minutes of the House of Delegates—May 8-9, 1944

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that now the arbitration board shall consist of two members of the local county society, two from the State Society, and one appointed by the

commissioner.

4. Conviction of fee-splitting in all its forms is now penalized by loss of authorization to function under the Compensation Law, and is also a misdemeanor. In addition, conviction carries with it possible loss of license to practice medicine under the newly amended Education Law. Incidentally, any other person not a physician who attempts to aid a physician in splitting a fee is also guilty of a misdemeanor.

Under the new Law, commercial x-ray laboratories are put out of business, and only a roent-genologist authorized by the compensation boards or by the medical practice committee can

practice as such under the Law.

The medical practice committee in New York City and the compensation boards elsewhere are now to have real power as well as legal assistance in hearing and investigating charges of misconduct against either physicians or licensed bureaus and laboratories.

7. All medical bureaus, laboratories, etc., henceforth must be licensed by the commissioner, and the new changes in the Law make possible standards of efficiency and professional competency never possible under the old law. In addition, the power to discipline is now very definite.

8. It is now the law that any interference by any person with the selection by an injured employee of an authorized physician to treat him, and the improper influencing or the attempt to influence the medical opinion of any physician who has treated or examined an injured employee shall be a misdemeanor. (That takes this common practice out of the realm of fun, and places it in a criminal category.)

When a claimant is to be examined by a physician employed by the Department of Labor, no physician employed by the employer, carrier, or employee shall be present at, or participate in any

manner in, such examination.

10. No claim for medical or surgical treatment will be valid in the future unless within fortyeight hours the physician makes a report to the employer, and also directly to the Industrial Commissioner. Insurance carriers, also, when they have a claimant examined, must file a copy of the report directly with the Industrial Com-

missioner within ten days.

11. The new Law also authorizes the Industrial Commissioner to employ physicians of outstanding qualifications as committees of expert consultants in such fields of medicine as he deems essential in order to ascertain the diagnosis, causal relationship, adequacy of medical or surgical treatment in cases where such matters are not readily determinable by the regularly employed medical examiner in the Workmen's Compensation division.

It is interesting to note that under the

new Law the Industrial Commissioner is made an absolute power. None of the recommendations made to him by a county society board, by the medical practice committee in New York City, by the medical appeal unit of the Industrial Council, are final, binding, and conclusive on him, as in the old law. They are now advisory only, and if he wishes to ignore them he may legally do

The new Law will soon be effective, and should correct many evils. Whether all of its provisions are wise can be determined only by experience in its operation. The significance of your Bureau will become apparent. The importance of its work in the past can be estimated only by one who has studied

the importance of its manifold activities.

It is estimated that under this Law in New York State \$20,000,000 is paid annually for the professional services of physicians. To strive on the one hand to protect the financial rights of the physicians and, at the same time, to insure that the quality of medical service delivered to the workingman is of the highest possible quality, are among a few of its functions. Its other duties have been many, arduous, and exacting, and it is the opinion of your reference committee that they have all been discharged in a very adequate manner. It should have the enthusiastic and unwavering support of the medical profession. The Bureau of the State Medical Society and the personnel of the medical profession are partners in the great enterprise of rendering the highest type of medical care to the workingman, and the dignity and competence of each is reflected by the other. We accept the challenge of the future with confidence and high determination.

We feel sure that your Council Committee and Bureau will ever bear in mind the obligation to use all honorable means to restore the full activities of the compensation boards to the societies of Brony, New York, Kings, and Queens. While we await the functioning of the new Law, your reference committee has but one recommendation to make.

It is one that we have obtained from a study of a contribution to this subject by a committee of the

New York Academy of Medicine.
Our recommendation is this: That in so far as the medical aspects of the Workmen's Compensation Law are concerned, the Governor be petitioned to appoint each year a state-wide committee of physicians to review the situation, and to suggest such studies or changes as might be indicated in order that weaknesses of the Law or of its administration might be detected and corrected as soon as they become discernible and before they attain undue pro-

Your reference committee moves the adoption of

this report.

LEO F. SIMPSON, M.D., Chairman STANLEY E. ALDERSON, M.D. JOHN J. GAINEY, M.D. NATHAN RATNOFF, M.D. NELSON W. STROHM, M.D.

# House of Delegates

# Minutes of the Annual Meeting

## May 8 and 9, 1944

THE 138th Annual Meeting of the House of Delegates of the Medical Society of the State of New York was held at the Hotel Pennsylvania, New York City, on Monday, May 8, 1944, at 10:10 A.M.: Dr. Louis H. Bauer, Speaker; Dr. William Hale, Vice-Speaker; Dr. Peter Irving, Secretary; Dr. Edward C. Podvin, Assistant Secre-

SPEAKER BAUER: The House will be in order.

Section 1. (See 35)

Report of the Reference Committee on Credentials

SPEAKER BAUER: The Chairman recognizes the Assistant Secretary, Dr. Podvin.

Assistant Secretary Podvin: Mr. Speaker, there are no disputed delegations, and all on our rolls

are entitled to vote. SPEAKER BAUER: I declare the 138th Session of the House of Delegates of the Medical Society of the State of New York open for the transaction of busi-

Mr. Assistant Secretary, how many delegates are

registered?

ASSISTANT SECRETARY PODVIN: I cannot give you the number at the present time, but there is obviously a quorum present, Mr. Speaker.

SPEAKER BAUER: A quorum being sixty delegates,

it is manifest that a quorum is present.

Section 2

#### Approval of the Minutes of the 1943 Session

Assistant Secretary Podvin: I move that the reading of the minutes of the 1943 Session of the House be dispensed with, and that they be approved and adopted as published in the June 15 and July 1, 1943, Issues of the New York State Journal of MEDICINE.

Dr. Benjamin M. Bernstein, Kings: I second

that motion.

... There being no discussion, the motion was put to a vote, and was unanimously carried. . . . .

Section 3

#### Reference Committees

SPEAKER BAUER: Will you read the Reference Committee appointments? There are a number of changes, so please pay particular attention to the

ASSISTANT SECRETARY PODVIN: The Reference Committees of the 1944 House of Delegates are as

REFERENCE COMMITTEE ON CREDENTIALS: Peter Irving, Chairman, New York County Charles F. McCarty, Kings County Edward C. Podvin, Bronx County John A. Pritchard, St. Lawrence County Roy E. Wallace, Seneca County

REFERENCE COMMITTEE ON REPORT OF PRESIDENT:
W. Guernsey Frey, Jr., Chairman, Queens County

Horace E. Ayers, New York County Gharles A. Frudhon, Jefferson County Robert C. Simpson, Montgomery County John E. Wattenberg, Cortland County

REFERENCE COMMITTEE ON REPORTS OF SECRETARY, TREASURER, CENSORS, AND DISTRICT BRANCHES:
Edward P. Flood, Chairman, Bronx County William G. Cooper, St. Lawrence County Regnald A. Higgons, Westchester County Madge C. L. McGuinness, New York County Theodore W. Neumann, Orange County

REFERENCE COMMITTEE ON REPORTS OF TRUSTEES:
Peter J. Di Natale, Chairman, Genesee County
Charles A. Anderson, Kings County
Archibald K. Benedict, Chenango County
Alfred H. Noehren, Eric County
Ada C. Reid, New York County

REFERENCE COMMITTEE ON REPORT OF PLANNING COMMITTEE FOR MEDICAL POLICIES: John J. Masterson, Chairman, Kings County Peter M. Murray, New York County Harry S. Bull, Cayuga County Stephen R. Monteith, Rockland County Warren Wooden, Mouroe County

REFERENCE COMMITTEE ON CONSTITUTION AND BYLAWS AMENDMENTS: Frederick W. Holcomb, Chairman, Ulster County Milton S. Lloyd, Richmond County Henry W. Miller, Putnam County John L. Sengstack, Suffolk County J. B. Lawlor, Oneida County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART I:
Postgraduate Education
Albert F. R. Andresen, Chairman, Kings County
Emil Koffler, Bronx County
Leon M. Kysor, Steuben County
Beverly C. Smith, New York County
Charles C. Trembley, Franklin County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART II:

Maternal and Child Welfare
John T. Donovan, Chairman, Eric County
Joseph A. Gels, Essex County
Harvey B. Matthews, Kings County
Louis A. Van Kleeck, Nassau County
Denver M. Vickers, Washington County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART III:
School Health
Leo F. Schiff, Chairman, Clinton County
Louis A. Friedman, Bronx County
Affred M. Heilman, New York County
Ralph I. Lloyd, Kings County
Ralph Sheldon, Wayne County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART IV: Public Health Activities Walter G. Hayward, Chairman, Chautauqua County Albert A. Cinelli, New York County Edwin A. Griffin, Kings County Harry I. Johnston, Broome County Leo P. Larkin, Tompkins County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART V:
Publications and Medical Publicity
William B. Rawls, Chairman, New York County
J. Lewis Amster, Bronx County
Joseph P. Henry, Monroe County
Thurber LeWin, Erie County
Lyman C. Lewis, Allegany County

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These things will come up before the Reference Committees, and more of the details will undoubtedly be reported later; consequently, any further remarks that I may wish to make on that and allied subjects I will be glad to present afterwards, as the subjects are brought up on the floor for discussion. (Applause)

SPEAKER BAUER: Thank you, Dr. McGoldrick! The remarks of the President are referred to the Reference Committee on the Report of the President,

Dr. Frey, Chairman.

Section 5. (See 75) Address of the President-Elect

SPEAKER BAUER: Dr. Gartner, will you be a committee of one to escort the President-Elect, Dr.

Bauckus, to the platform?

(The delegates arose and applauded as Dr. Albert A. Gartner, of Erie County, escorted Dr. Herbert H. Bauckus to the platform.)

PRESIDENT-ELECT BAUCKUS: Thank you!

SPEAKER BAUER: Dr. Bauckus, your troubles are about to begin, so you might as well start them now.

Gentlemen, your President-Elect! President-Elect Bauckus: We have arrived at the 138th Annual Meeting of the Medical Society of the State of New York, not one of us but tensely conscious that a vital and greatly increased responsibility challenges the medical profession in the world of 1944. Here in the largest city of the world we meet in peace, comfort, and security, yet through the means of modern transportation we are less than a day from the most destructive war in the history of man, and within sixty hours from the once remote corners of the earth. Truly, we are close to this most terrible devastation. Today we give our service in this very city to brave men and women who tomorrow are in the peril and horror of battle far away in foreign lands; and so this once large earth has become relatively small and our task in it increasingly great. When war destroys life and happiness, the more the need for our profession to strive for human salvation, even to the mind and body of the most barbarous enemy, for the quality of mercy is an essential in the practice of medicine.

We are then clear in the concept of our part in the winning of this war for the forces of democracy and for the preservation of those fine ideals which our profession has cherished since the time of Hippocrates. May I, for the Medical Society of the State of New York, pledge our most sincere loyalty to the President of the United States, our Commander-in-Chief, and to all those of duly constituted authority

in the government of our people?

The reports of our Annual Meeting indicate that the war participation of our membership has been well planned. Over nine thousand physicians of New York State, more than a third of the total number of practitioners, have responded to the call to the colors. That they will not acquit themselves well and nobly in this great world conflict we need not fear, for we know what they are and how they have been trained. Of the great personal sacrifice they have made, and will continue to make, we cannot tell in words that can adequately display our pride and our appreciation. They will not all return, but we need them and want them back here with us again. Let us think of this as our responsibility and debt to our fellow practitioners in the military services, and let us be practical about this, too.

The problems of rehabilitation are already at hand. They extend into every aspect of our social life. They will increase as we approach the long-hoped-for

The appropriate committees of postwar period. Organized Medicine will assume their share of this burden in the great cost of war. I shall not attempt to review the many important features in our work of the past year under the faithful and able leadership of your President, Dr. Thomas A. McGoldrick. The annual reports of our many committees, the studies and recommendations by the reference committees, and the final action of this House of Delegates will bring forth much for the benefit of the people we serve in this State. I should like to call to your attention certain matters which I feel are of the utmost importance for our careful consideration, and I shall report on these in the knowledge that I really only mention them and cannot in this space of time fully discuss and analyze them. I shall presume upon you further by making these statements somewhat in the way of recommendations, in a manner of thinking out loud, so to speak.

We are an integral part of the American Medical Association. We send representative delegates to its meetings, and we are interested to see it function as a democracy. This form of government is not without its troubles, errors, and temporary failures, but it is to us the only kind worth fighting for. Loyalty, patience, study, work, and constructive criticism, too—these attributes will make us faithful members of this great educational institution. By the same token, the Medical Society of the State of New York needs, as it does its life's blood, the support and cooperation of its component county units. The thought of the community counts with values indispensable in the program for good medical care. I hope we can keep in close contact with every county society. I commend heartily as an outstanding development for good national health the estab-lishing of the new Council on Medical Service and Public Relations of the American Medical Association.

We are licensed as a profession because the people believe they can best be served when especially prepared experts minister to their needs. This license is beneficial, protective, and in a way provides restraint, but this restraint, if just, depends upon capacity and training, not on special privilege. Long has the profession struggled to secure high standards in the Medical Practice Act of the State of New York, and having attained them in our law—we have attained them-again have fought valiantly and long, and against difficult odds, to retain them, solely for the protection of the public health. Who that is ill, or responsible for the care of illness in the family, does not want the practitioner in charge to have the best skill, ability, and training possible? Who doubts the time, equipment, and personnel necessary to give this training? And yet each year legislation is introduced to allow persons untrained in the healing art, cultists and the like, to undertake to diagnose and cure human illness. Licensing these cults makes their ridiculous scientific claims more susceptible to. belief by an insufficiently educated portion of a credulous public. Some have thought that a Basic Science Law would make it more difficult for chiropractors to practice the healing art. I am opposed to the support of this proposal. In my opinion, its passage would result at once in the passage of a bill licensing chiropractors, and those already in practice would be licensed without a basic science examination. We would expect physicians already in practice to be exempted; why not others? A basic science qualification is somewhat equivalent to the first third of our medical studies; it does not embrace contact with the sick, and it is not adequate training

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART VI:
Public Relations and Economics
David W. Beard, Chairman, Schoharie County
William Klein, Bronx County
Maurice C. O'Shea, New York County
Guy S. Philbrick, Niagara County
Bernard S. Strait, Yates County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART VII: Nonprofit Medical Expense Insurance

Albert A. Gartner, Chairman, Eric County Samuel E. Appel, Dutchess County n, Kings County York County Oneida County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART VIII:

nan, Nassau County ngs County County

Joseph C. O'Gorman, Eric County Ezra A. Wolff, Queens County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART IX:
Workmen's Compensation
Lee F. Simpson, Chairman, Monroe County
Stanley E. Alderson, Albany County
John J. Gainey, Kings County
Nathan Ratnoff, New York County
Nelson W. Strohm, Erie County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART X:
Medical Licensure
Maurice J. Dattelbaum, Chairman, Kings County Fenwick Beekman, New York County
Edgar O. Boggs, Lewis County
Walter T. Heldmann, Richmond County
William A. Peart, Niagara County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART XI:
Malpractice Defense and Insurance Legal Counsel Moses H. Krakow, Chairman, Bronx County John Dugan, Orleans County
John L. Edwards, Columbia County
B. Wallace Hamilton, New York County
H. P. Mencken, Queens County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART XII:

War Participation and General Matters
Dan Mellen, Chairman, Oneida County
Stephen H. Curtis, Rensselaer County
Burdge P. MacLean (Scientific Section Delegate), Suffolk County
William C. Meagher, Kings County
Jacob Werne, Queens County

REFERENCE COMMITTEE ON NEW BUSINESS A: EFERENCE COMMITTEE ON NEW BOS John D. Catroll, Chairman, Rensselaer County Arthur S. Broga, Madison County Thomas M. D'Angelo, Queens County Henry S. Martin, Wyoming County Donald E. McKenna, Kings County

REFERENCE COMMITTEE ON NEW BUSINESS B: Andrew A. Eggston, Chairman, Westchester County Joseph H. Cornell, Schenectady County Charles S. Lakeman, Monroe County Morris Maslon, Warren County Thomas B. Wood, Kings County

REFERENCE COMMITTEE ON NEW BUSINESS C: J. Stanley Kenney, Chairman, New York County Kenneth F. Bott, Greene County Irwin E. Siris, Kings County Scott L. Smith, Dutchess County William W. Street, Onondaga County

Mr. Speaker, I move that the reports of Officers, Council, Trustees, Legal Counsel, and District Branches that have been published and distributed to the members of the House be referred to the respective Reference Committees without reading.

DR. ROBERT BRITTAIN, Delaware: I second that motion.

... There being no discussion, the motion was put to a vote, and was unanimously carried. ... Speaker Bauer: The reports are so referred.

The tables for the Reference Committees, with the exception of the New Business Committees, are in the Manhattan Room, which is one floor below. The New Business Committees will meet in the antercom outside of this hall. The stenographers are in Conference Room 8, which is on the mezzanine floor. I believe that all committees should meet in their respective places as soon as this House recesses this noon.

Section 4. (See 75)

### Remarks of the President

Speaker Bauer: Dr. Brennan, would you be a committee of one to escort the President of the Medical Society of the State of New York to the platform?

(The delegates arose and applauded as Dr. Thomas M. Brennan, of Kings County, escorted Dr. Thomas

A. McGoldrick to the platform.)

SPEAKER BAUER: Dr. McGoldrick, we are proud to have you address us this morning, and I hope that when you conclude your remarks you will keep a seat on the platform.

Gentlemen, your President! PRESIDENT MCGOLDRICK: I have very little to say to take up your time this morning. The report for the year has been published in the Journal, and, as you just heard, has been referred to the appropriate reference committee. Since that report was published the principal action affecting the Society has been in reference to Workmen's Compensation.

The Moreland Act Commission to investigate the

workings of the Compensation Act made its report to the Governor, and on that report certain amendments were drawn up and sent, with the Governor's approval, to the Legislature, and adopted by that

body without change. .

The principal suggestion that was enacted was separating the State into two parts as far as that Act is concerned: the area of four of the five counties in the City of New York was made one and the rest of the State was made another, with different laws or amendments to the existing law for those two different parts. Throughout the State, outside of New York City, there have been practically no changes or very slight changes in the arbitration committee. In the Greater New York counties the work which has been delegated heretofore to the county societies has been taken away from them, and as the law stands now the county societies of Greater New York no longer have the power over those principal func-tions—namely, the rating of physicians in their special qualifications, the inspection and licensing of clinics for compensation work or first aid, the arbitration of disputed bills, and the investigation and trial of men qualified under the Act for violations of the Act. All of those functions have been taken by law away from the county societies in the Greater New York area, and have been taken over by the industrial Commissioner through a different organization.

It is expected that, because of the enormity of the work, the county societies will, on invitation of the Commissioner, do some of the rating. The Commissioner has really expressed his wish for that, and I am sure that every contribution which the county societies and the State Society can make to the successful administration of the law will be made, regardless of the feelings or wishes of the members thereof. It is the law, and while many of us do not like what has happened, nevertheless it will be carried out, I am sure, and offers have been made to the Commissioner and to the Governor of complete co-

operation.

voluntary, prepayment insurance for the cost of medical care. As Chairman of the Subcommittee I have prepared an extended annual report on the subject, which is at the disposal of the Reference Committees and this House of Delegates. Therein I have given reasons for the establishment of a competent bureau with director and personnel so that our Society can assume its proper role in the provision for medical care costs. We now have the experience that will enable us to advance. The people of this intelligent and produce that the control of the contr intelligent and modern State deserve the opportunity to procure for themselves this kind of insurance for their personal health. Participation in these plans is a great education in the responsibility of the individual to think about health and to prepare for the prevention of disease. There has been much talk about the cost of medical care being a deterrent to early diagnosis and treatment, but it has been well said that of man's miraculous mistakes, procrastination bears the palm. Let us also not make the mistake of procrastination in this vital question of the hour.

I should like to call your attention to that portion of the report dealing with the respective fields of hospitalization and of medical care insurance. At this time I am pleased to report the formation of the United Medical Service, Inc., an announcement which may be of great significance to people in the

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The new company is a consolidation of the Community Medical Care and the Medical Expense Fund and, like its predecessor companies, is a nonprofit organization engaged in providing prepaid medical insurance for the middle- and lower-income groups of the seventeen lower counties of New York State. The new company, I hope, will be approved by the Medical Society of the State of New York, and it is expected that similar endorsements will be forthcoming from all of the county medical societies in which the company is licensed to do business.

It has long been clear to most students of the

problem that no voluntary insurance plan to provide adequate medical service for the lower- and intermediate-income groups can succeed in any important way without the full cooperation of the medical profession. It has also been equally clear that policies providing for the payment of doctors' bills should be offered to the public in conjunction with policies providing for hospital bills. Accordingly, accredited representatives of the medical profession and the Associated Hospital Service of New York have met on frequent occasions during the past eighteen months to work out plans which would embrace these two requisites. The result of these deliberations is the creation of United Medical Serv-

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SPEAKER BAUER: Thank you, Dr. Bauckus! The remarks of the President-Elect are referred to the Reference Committee on the Report of the President, Dr. Frey, Chairman.

Dr. Bauckus, will you not remain on the plat-

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Section 6. (Sec 38)

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The questions of medical relief are still important. The statement is often made that the very poor receive the best of medical care. This is inaccurate. It is more correct to say the welfare group should have the best of medical care. We are making real progress with Boards of Social Welfare groups in this regard.

Recently the government of New York State has made many laudable advances into the fields of medical care for the benefit of its citizens. Some of these plans may be new and far-reaching. They require careful study and sincere evaluation, and under these conditions much good will come to medicine. We will cooperate to the full in the development of sound health programs. No one knows better than physicians that human beings have minds we must consider, and that the personal contact is ever an integral part of the practice of medicine.

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dent, Dr. Frey, Chairman.

Dr. Bauckus, will you not remain on the platform?

There are a number of Supplementary Reports which have been turned in, and which have been mimeographed and distributed. You will find them in your seats. If any of you do not have them, there are extra copies here on the table.

Section 6. (See 38)

Supplementary Report of Council—Part I: Post-graduate Education

In addition to the postgraduate instruction mentioned in the Annual Report of the Council Committee on Public Health and Education submitted on March 1, 1944, postgraduate instruction has been arranged for the following county medical societies:

The Committee arranged for postgraduate instruction to be presented in twenty-seven counties with a total of ninety-six lectures, sixty-eight of which were provided jointly by the Medical Society of the State of New York and the New York State Department of Health.

A request for instruction has been received from the Chemung County Medical Society. As soon as subjects and speakers have been decided upon, final

arrangements will be completed.

The Council Committee on Public Health and Education and the New York State Department of Health are making a special effort to present to the medical profession the very latest information regarding penicillin therapy. Preceding the announcement of postgraduate instruction to be offered and the speakers available, a one-day speakers' conference was held in the Library of the State Laboratory in Albany on April 26, 1944. Many of the leading authorities in this field addressed the group and an outline will be prepared from these presentations to be used by the lecturers who will address county medical societies.

As a part of the Home and Farm Safety Program, the Medical Society of the State of New York and the Division of Public Health Education of the New York State Department of Health have designated a group of physicians to discuss subjects relative to the medical and surgical care of home and farm accidents at meetings of county medical societies and other medical groups. Preceding the announcement of this instruction and the speakers available, a speakers' conference was held in New York City on May 10, 1944, for the purpose of organization.

Section 7. (See 52)

# Supplementary Report of the Council—Part IV: Public Health Activities

Blood and Plasma Exchange Banks.—The following is a statement submitted by the New York State Department of Health regarding the Department's plan concerning the "recommendations" prepared by the Subcommittee on Blood and Plasma Exchange Banks:

"The New York State Commissioner of Health has advised the Council Committee on Public Health and Education that he has been giving very serious consideration to the recommendations of their Subcommittee on Blood and Plasma Exchange Banks as published December 1, 1943. The State Department of Health regards the establishing of an adequate civilian supply of whole blood, blood plasma, and other blood substitutes as a proper responsibility and is anxious to develop a program for this service. Due to the nature and complexity of the problems that must first be solved and the pressure of other matters, it was impossible to develop plans in time for submission to the 1944 Legislature. It is fully expected, how-ever, that such plans will be presented in 1945, and steps are being taken at the present time to try to locate the properly trained personnel to develop

plans which will embrace collection, preparation, and distribution on an equitable basis and in such a manner as to supplement rather than supplant existing facilities where they are adequate and operating in accordance with high standards."

Copies of this statement were mailed to members of the Subcommittee on Blood and Plasma Exchange Banks.

Section 8. (See 72)

# Supplementary Report of the Council—Part IX: Workmen's Compensation

In the report of the Council Committee on Workmen's Compensation published in the JOURNAL of April 1, 1944, page 763, there appears a statement to the following effect:

"On June 11, 1943, your Committee reported to the Council that Attorney General Nathaniel L. Goldstein had rendered an opinion on May 4, 1943, that the Medical Society Compensation Boards were authorized under the Civil Practice Act, Sections 406 and 358, to subpoena witnesses and to render the oath to witnesses. The same opinion indicated that such authorization is not contained in Section 13-d of the Workmen's Compensation Law itself (as amended in 1935). On the basis of this decision, the medical societies have proceeded with the investigations and hearings of physicians charged with violations of Section 13-d of the Workmen's Compensation Law."

In amplification and explanation of this Section we wish to point out that the first release to the press concerning physicians involved in the "kickback" practices appeared on April 3, 1943. Immediately thereafter your Director conferred with the Acting Industrial Commissioner and his deputies concerning the steps to be taken by the medical societies to hear the accusations of the Moreland Act Commissioners against the physicians named.

It was agreed at that time that the Industrial Commissioner, through his deputies, would proceed against the more flagrant offenders named by the Moreland Act Commissioners, and the medical societies would also simultaneously begin proceedings against the other physicians so that the burden of hearing and trying the large number of physicians involved would be shared both by the Labor Depart-

ment and the medical societies.

Your Director, or another representative of the medical societies, attended all of the hearings held by the Deputy Commissioners of the Labor Department. (About thirty hearings and trials were held until the proceedings were stopped by Supreme Court decision on September 8, 1943, after which all those physicians' cases were referred back to the medical societies for action.) At the same time your Director arranged the procedure to be followed by the Compensation Boards of the county societies, in fulfilling their functions under Section 13-d.

At once legal difficulties arose, because the medical societies, up to that moment, on information previously received from proper authorities in the Labor Department and through their own Counsel, were of the belief that they did not possess the power of subpoening witnesses or rendering the oath to witnesses, either physicians or laymen. It was apparent, from the beginning, that it would be necessary, in order to substantiate charges against the physicians named, to subpoena lay witnesses as well as physicians and put them under oath, and that in many instances the books and records of both laymen and

physicians would have to be subpoenaed. Therefore, on April 26, 1943, your Director, after conferences with the Acting Industrial Commissioner and his deputies, addressed a communication to the Acting Industrial Commissioner, Mr. Michael J. Murphy, setting forth the legal problems facing the medical societies under the limited jurisdiction possessed by them to participate to the fullest extent in the investigations and trials, and asking for an immediate opinion by the Attorney General on the legal questions involved. Our letter in full is available.

On May 19, 1943, the Industrial Commissioner answered the above letter by enclosing a copy of an opinion handed down by the Attorney General, Nathaniel L. Goldstein, which opinion is available on call.

Upon receipt of this opinion the medical -ocieties proceeded at once with hearings of the doctors whose names appeared on lists released from time to time by the Moreland Act Commissioners. The last of these lists of physicians was not obtained by us until January 11, 1944. In the interim nearly all the physicians whose names appeared on the first lists submitted in the spring and early summer were heard by the societies and either admitted or denied their guilt. It was arranged that those who denied their guilt would be placed on formal trial as soon as all the physicians named had an opportunity to be heard in preliminary hearings.

During this period your Director conferred frequently with the Chairmen of the various Workmen's Compensation Committees and meetings were arranged with them and with the Industrial Commissioner and his deputies to develop a more or less uniform method of procedure, and, if possible, to agree upon a more or less uniform method of recommending to the Industrial Commissioner the degree of discipline to be meted out to those found guilty. All of this was done without undue delay, considering the numerous legal questions raised by the Counsel for the Society and others as to the authority of the medical societies to act under the provisions of Section 13-d. After, for example, New York County had heard practically all the physicians named on the initial list, the question was raised by the Counsel as to the propriety and legality of the Workmen's Compensation Board's acting unless charges were first preferred by the Industrial Commissioner, the Workmen's Compensation Board of the Society then acting as a court and making recommendations to the Industrial Commissioner as to punishment of those deemed guilty.

It was not until April 6, 1944, that these formal charges were made by the Industrial Commissioner against all the physicians named by the Moreland Act Commissioners, against many of whom the county societies had already taken preliminary ac-

In accordance with the agreement made between the medical societies and the Industrial Commissioner, recommendations for punishment were necessarily delayed until the various procedural and legal difficulties were cleared up and until the medical societies had, by holding a large number of preliminary hearings, gotten a clear perspective of the magnitude of the problem before them and the degree of guilt, if any, of the numerous physicians named.

It can be definitely stated, in view of the large number of physicians involved, that the medical societies have acted promptly and courageously. The fact that the medical societies were charged by the Moreland Act Commissioners in the public

press did not serve in any way to enhance the procedure or to stimulate the medical societies to prompter action, but confused the issue. In any event, the record above will show with what dispatch and thoroughness the societies acted in the face of an unprecedented volume of work and without adequate authority, funds, or personnel at the time the original charges were made.

HARRY ARANOW, M.D., Chairman

Section 9. (Sec 58)

Supplementary Report of Council-Part X: Medical Licensure

Since filing the Annual Report, the suggested changes in Section 32, Subdivision 2C of the Regulations of the Commissioner of Education with respect to the special requirements in licensing examinations in medicine were turned down completely. Chairman of the Committee of Licenses of the Board of Regents, in reviewing the question, commented after reading the law "that the Department is not obliged to give more than two examinations. The law says that an applicant shall pay \$25 for the first examination and a second examination may be given without fee; but the law makes no suggestion for a third or other examination. However, since the Department has established a precedent of giving more examinations, it probably cannot discontinue giving them." It does, nevertheless, charge the full fee of \$25 for every succeeding examination after the second.

The Council has since received the following communication from the Commissioner of Education under date of March 20, 1944:

'Some time ago you forwarded to me two resolutions adopted by the House of Delegates of the Medical Society of the State of New York having to do with the licensure of physicians in the State. The first resolution urged the Board of Regents to refuse to admit to examination for licensure any graduate of a foreign medical school 25 per cent of whose graduates taking the examination during the past ten years have failed to pass. The second resolution urged the Board of Regents to limit definitely to three in all the number of examinations which may be taken by any candidate for licensure to practice medicine in the State.

"These resolutions have been given thorough consideration by the Department and by the Board of Regents and I believe at least one conference has been held on the subject involving representatives from the Board of Regents, the

Department, and the Medical Society.

'Counsel for the Department has ruled that it would be illegal for the Board of Regents to refuse to admit to the medical licensing examination a graduate of a foreign school 25 or more per cent of whose graduates taking the examination during the past ten years have failed to pass, if such a candidate has met the requirements for admission. Counsel has also ruled that it would be illegal for the Board of Regents to limit to three in all the number of examinations which may be taken by any candidate for licensure to practice medicine in the State. The ruling of the Counsel is based upon the consideration that when a candidate has met the requirements for admission to the licensing examination he is eligible to take the examinations and that the Regents may not exercise discretionary power. "The Board of Regents wished me to express our

appreciation for your continued interest in medical education and licensing in the State."

The decision is, of course, a great disappointment to the Council and the Committee on Medical Licensure. It leaves and suggests only one recourse: Change the law. Accordingly, the Executive Officer and the Chairman of the Medical Licensure Committee have been instructed by the Council to meet with Commissioner Miller and Counselor Brind to draft amendments to the law in regard to (1) the number of examinations and (2) citizenship. These will be introduced at the next session of the Legislature after approval by the Council.

Section 10. (See 59)

# Supplementary Report of Council—Part XII: War Participation

Remission of State Assessments for Members Discharged from Service.—The Council received a request from a county society as to how best the matter could be managed of deciding which members leaving the service should have remission of dues and State assessments and which should be expected to pay dues and State assessments. The Council went on record as follows and directed that this information be transmitted to the county medical societies:

"Any member serving more than sixty days in the armed forces is entitled to remission of dues for the year in which service is rendered. If he serves sixty days or less he is not entitled to remission of dues, and if his dues were previously remitted that action shall be revoked.

"A member discharged from the armed forces after more than sixty days of service shall have his dues remitted for the calendar year in which he was discharged regardless of the month; however, unless he has served a total of at least fourteen months he shall not be entitled to remission of more than one year's dues."

Procurement and Assignment of Nurses.—The Council received a request from the Procurement and Assignment Committee of the New York State War Council for Nurses for aid through the county societies in the work of that Committee. On April 13, 1944, the Council went on record as recommending that the county societies receive nurse representatives of the Committee and discuss with them local conditions in the effort to aid nurse procurement and assignment.

(This was made the subject of a memorandum from the main office to the county societies.)

Section 11. (See 59)

# Supplementary Report of Special Committee on Office Administration and Policies

The Special Committee on Office Administration and Policies recommends that the House of Delegates continue this Special Committee working under supervision of and reporting to the Council, and that the House give the following directive as to continuance of its personnel in keeping with the action of the House in 1943:

"The Committee on Office Administration and Policies shall consist of the General Manager, the Business Manager of the Journal and Directory, the literary editor, the Treasurer, and one member of the Board of Trustees to be appointed by the President of the Society, after consultation with the chairman of the Board of Trustees."

Section 12. (See 36) .

# Supplementary Report of Special Committee on Publication

The Special Committee on Publication recommends that the House of Delegates continue this Special Committee of the Society working under supervision of and reporting to the Council, and that the House give the following directive as to the continuance of its personnel in keeping with the action of the House in 1943:

"The Committee on Publication shall consist of the General Manager, the Treasurer, the Director of the Public Relations Bureau, the literary editor, and one trustee, who shall be chairman; the trustee to serve shall be selected by the Chairman of the Board of Trustees, and the literary editor shall be selected by the Committee on Publication at its first meeting after this meeting of the House of Delegates, the former literary editor not voting. This is deemed to be the most satisfactory way to choose the incumbent of this position, who thereupon becomes a member of the Committee, because of the familiarity of the Committee with the duties involved and the qualifications necessary for the satisfactory performance of them."

Speaker Bauer: Does anyone desire that these supplementary reports be read?

CHORUS: No.

Speaker Bauer: They have been distributed, and you can look them over at your leisure. If there is no objection, the Chairman will refer them as follows: Postgraduate Education—to the Reference Committee on Report of Council, Part I, Dr. Andresen, Chairman; Public Health Activities—to the Reference Committee on Report of Council, Part IV, Dr. Hayward, Chairman; Workmen's Compensation—to the Reference Committee on Report of Council, Part IX, Dr. Simpson, Chairman; Medical Licensure—to the Reference Committee on Report of Council, Part X, Dr. Dattelbaum, Chairman; War Participation and General Matters—to the Reference Committee on Report of Council, Part XII, Dr. Mellen, Chairman; Special Committee on Office Administration and Policies—to the Reference Committee on Report of Council, Part XII, Dr. Mellen, Chairman; Special Committee on Publication—to the Reference Committee on Report of Council, Part VI, Dr. Rawls, Chairman.

Hearing none, it is so ordered.

# Section 13. (See 60, 76) Constitution and Bylaws Amendments

There have been several amendments which were proposed last year, and the Chairman did something a little unprecedented in regard to them in that heretofore it has never been the policy to refer amendments to the Constitution and Bylaws to a Reference Committee, but have them taken up directly in the House. This year I felt it would be better to refer them to a Reference Committee, for the reason that two amendments are based on the same subject—namely, the question of apportionment of delegates, and neither one of the amendments which have been submitted is in language which could possibly be adopted, so they would require considerable discussion. Therefore, it was felt that this could be done better in a reference committee, so the amendments have been referred to Reference Committee.

The first proposed amendment reads:

"Whereas, the recently enacted reapportionment bill is based upon the population ratio and will thereby cause a redistribution of delegates from the component medical societies to the House of Delegates to the Medical Society of the State of New York; therefore be it

"Resolved, that the number of delegates from any component medical society be not reduced from their present number unless there has been a material reduction of the number of physicians in

the area of any county medical society,

and it is meaningless because it does not say what is a material reduction.

The next proposed amendment on the same subiect is:

"Each component county society shall be entitled to elect as many delegates as there shall be State assembly districts in each county at the time of the election, but each component county medical society shall be entitled to elect at least one delegate''

and this one is also meaningless because it does not

say what ratio or proportion is necessary.

Therefore these amendments have been referred to a Reference Committee on Constitution and By-laws, of which Dr. Frederic W. Holcomb is Chair-

There is another amendment on the question of travel expenses of the delegates to the American Medical Association. That has been referred to the

same committee.

There were two amendments which referred to the setting up of a Medical Benevolence Fund. were introduced two years ago, were withdrawn last year, and were reintroduced. I understand that the gentleman who introduced these amendments last Year wishes to withdraw them. Is that true?
DR. GEORGE W. KOSMAK, New York: Do you

want me to do that now?

SPEAKER BAUER: Yes.
DR. GEORGE W. KOSMAK, New York: I should like the permission of the House to withdraw these

amendments Speaker Bauer: Dr. Kosmak requests permission to withdraw these two amendments pertaining to the setting up of a Medical Benevolence Fund.

Having been introduced before the House, they can only be withdrawn with the consent of the House. Is there any objection to their being withdrawn?

(None was expressed.)

SPEAKER BAUER: The Chairman hears none.

They are, therefore, withdrawn and will not be

referred to a Reference Committee

The Reference Committees will all meet in the Manhattan Room, with the exception of the Reference Committees on New Business, who will meet in the anteroom. I suggest that all Reference Committees meet promptly as soon as the House recesses, because we are very anxious that none of you should be absent from the House for the afternoon ses-

We have set that farther on by half an hour than usual so as to give the Reference Committees a little more time. The House, when it does reconvene, will do so at 3:30 instead of at 3:00 o'clock.

At this time I might state that in accordance with the Bylaws the Speaker makes up a schedule of the adjourned sessions of the House, which has been published. The House has a right to amend those if it sees fit.

Section 14

Approval of Proposed Time Schedule of House of Delegates

SPEAKER BAUER: To refresh your memory, the House will reconvene at 3:30 this afternoon, will meet again at 9:00 o'clock tomorrow morning, and at 1:00 o'clock tomorrow afternoon. Does anyone wish to make any alteration in that schedule?

(There was no response.)
SPEAKER BAUER: If not, that schedule will

stand as published.
All of those who have an interest in any of the resolutions which will be presented or in any of the reports which have been presented and/or printed and distributed should seek out the proper Reference Committee and state your views before them.

Section 15

Introduction of Representatives from Other State Societies

SPEAKER BAUER: I know there is a delegate here from New Jersey. Are there any delegates from Connecticut or Vermont?

(There was no response.)

SPEAKER BAUER: Apparently not. If anyone hears of a delegate from either one of those states being present, I wish he would inform the Speaker.

We are honored this morning by having with us not only a delegate from our neighboring State of New Jersey, but the President of the New Jersey State Society. Dr. Kenney, will you present Dr. Joseph F. Londrigan, President of the Medical Society of New Jersey?

(The delegates arose and applauded as Dr. J. Stanley Kenney, of New York, escorted Dr. Joseph F. Londrigan to the platform.)

SPEAKER BAUER: I am going to ask Dr. Londri-

gan to say a few words to you.

We are very glad indeed to have you here, not only to represent your Society, but particularly because of your prominence in it.

Dr. Joseph F. Londrigan: Thank you!

I shall be extremely brief in my remarks. Mr. President, Mr. President-Elect, Mr. Speaker, and Members of the House of Delegates of the Medical Society of the State of New York, it is indeed a pleasure to bring to you greetings from the State of New Jersey. If there ever was a time when unity should be the watchword of Organized Medicine, that time is now.

New Jersey joins with New York in support of our parent organization, the American Medical Association, to maintain and keep inviolate the American

way of practicing medicine.

The wish from the State of New Jersey to you, this House of Delegates, is that you will have a most successful session.

I thank you! (Applause)
SPEAKER BAUER: Thank you, Dr. Londrigan! I understand there are some guests here from the State of Wisconsin. Will they please arise?

(Five delegates from the State of Wisconsin arose

amid applause.)

SPEAKER BAUER: We are very glad to have you here, gentlemen, and I hope you will be with us throughout this meeting. I shall be glad to extend the privilege of the floor at any time to you.

SPEAKER BAUER: Dr. Londrigan, are there any

other delegates here from New Jersey?

Dr. Londrigan: None that I know of.

Speaker Bauer: The Chairman will now receive resolutions.

Section 16

Constitution and Bylaws-Proposed Amendment to Article XI, Section 1-Action Delayed One Year

Dr. W. G. COOPER, St. Lawrence: At the annual meeting of the St. Lawrence County Medical Society held at Potsdam, November 11, 1943, the following motion was carried:

"That the President appoint a committee consisting of two delegates and two other members to proceed with the movement to bring about a transfer from the Fourth to the Fifth District Branch."

Accordingly, we suggest the following amendment to the Constitution of the Medical Society of the State of New York:

"Article XI, Section 1, shall be amended so that there be deleted from the fourth paragraph the name 'St. Lawrence;' and so that there be added to the fifth paragraph the name 'St. Lawrence.' These paragraphs would then read:

'The Fourth District Branch shall comprise the members of the Medical Societies of the Counties of Franklin, Clinton, Essex, Hamilton, Fulton, Montgomery, Schenectady, Saratoga, Warren, and Washington.

'The Fifth District Branch shall comprise the members of the Medical Societies of the Counties of Onondaga, Oneida, Herkimer, Oswego, Lewis, Madison, Jefferson, and St. Lawrence."

SPEAKER BAUER: This being an amendment to the Constitution, no action is required on it at this time, but it will remain in the hands of the Secretary and be acted on next year after publication.

Section 17

(Resolution presented by Dr. Heyd, which was in Executive Session, withdrawn.—Secretary.)

SPEAKER BAUER: Are there any other resolutions?

Section 18. (See 44)

#### Women Medical Students and Interns

DR. EMILY D. BARRINGER, New York: I should like to present the following resolution:

"Whereas, the Medical Society of the State of New York has had the vision and courage to endorse and expedite the securing of commissions in the Medical Corps of the Army and Navy for women physicians; and

"Whereas, the satisfactory commissioning of women physicians in the Medical Corps depends on a supply of well-trained applicants; and

"WHEREAS, the premedical and medical education of women physicians has been seriously affected by the accelerated medical educational program of the Army and Navy, in which the best interests of the women physicians have been ignored, and there is no national standardization in regard to the status of the woman medical student, she being in the position of the proverbial stepchild, while the man medical student is receiving every educational and monetary consideration from the government; and

"Whereas, the woman physician is held equally responsible in the eyes of law, because the same license to practice medicine is issued to her as to

her brother colleague; therefore be it "Resolved, that the Medical Society of the State of New York appoint a special committee to study the problem of the status of the woman medical student and intern; that this committee be in-

structed to evaluate the many difficulties of the problem, and have power to act to correct them; further, that on this committee there should be at least two women physicians who are known to be vitally interested in the matter, and that one of these women should be the incoming President of the American Medical Women's Association, who is a member of our Society."

SPEAKER BAUER: That is referred to the Reference Committee on New Business B, of which Dr. Eggston is Chairman.

Section 19. (Sec 46)

Noninclusion of X-Ray and Anesthesia in Any Hospital Service Plan

Dr. Thurber LeWin: I am instructed by the Medical Society of the County of Erie to present the following resolution:

"Whereas, a motion was made, seconded, and carried that the Medical Society of the County of Eric solicit the aid of the State Society against the inclusion of x-ray and anesthesia in any Hospital

Service Plan; therefore be it "Resolved, that the State Society establish a definite stand on this matter."

SPEAKER BAUER: That is referred to the Reference Committee on New Business C, of which Dr. Kenney is Chairman.

Section 20. (See 54)

Special Membership Fee for Interns and Residents

DR. THURBER LEWIN: This is also being introduced upon the instruction of the Medical Society of the County of Erie:

"WHEREAS, it would be in the best interests of the younger men to join the State Society; therefore be it

"Resolved, that interns and residents in hospitals be permitted to join the organization at a reduced fee ''

SPEAKER BAUER: That is referred to the Reference Committee on New Business A, of which Dr. Carroll is Chairman.

Section 21. (Sec 49)

#### 1945 Meeting Invitation to Buffalo

DR. THURBER LEWIN: This is the third resolution being introduced upon instruction of the Medical Society of the County of Erie:

"Whereas, the 1943 Annual Meeting of the Medical Society of the State of New York was a

great success in Buffalo; and
"Whereas, Dr. Herbert H. Bauckus, your
President-Elect, is a Buffalonian; and
"Whereas, the Medical Society of the County
of Erie would deem it an honor and privilege to have its colleagues convene there again; therefore be it

"Resolved, that the Medical Society of the County of Eric extend an invitation to the Medical Society of the State of New York to hold its 1945 Annual Meeting in Buffalo." SPEAKER BAUER: That is referred to Reference

Committee on New Business C, of which Dr. Kenney is Chairman.

Section 22. (See 39)

United Medical Service

Dr. Benjamin M. Bernstein, Kings: This is a resolution concerning the United Medical Service:

"WHEREAS, the United Medical Service has been organized by a merger of the Community Care Plan and the Medical Expense Fund of New York; and

"Whereas, it is urgent that a plan for health insurance which would be workable and salable as well as equitable both to the doctor and the public

be put into operation without further delay; and "WHEREAS, the rapid sale of this plan to a large number of subscribers will be of enormous value in counteracting the attempts being made by government to control the practice of medicine;

"Whereas, the United Medical Service is a plan for health insurance entirely under control of

the medical profession; and

"WHEREAS, this plan has an adequate amount of cash on hand to pay the bills for medical care;

"WHEREAS, this plan does not ask the doctor to contribute to the financial setup or for the carrying

on of its activities; and "Whereas, it is for the benefit of the physician as well as the patient that the provisions of this plan provide for free choice of physician without the restrictions imposed by a panel system; therefore be it

"Resolved, by the House of Delegates of the Medical Society of the State of New York in convention assembled on May 8, that it does hereby approve the plan of United Medical Service; and

be it further "Resolved, that it urges every practicing physician in the seventeen counties governed by the scope of the plan to give it their whole-hearted support and signify his or her willingness to serve in accordance with the provisions of the plan as soon as support is formally requested."

SPEAKER BAUER: This is referred to the Reference Committee on Report of the Council, Part VII, of which Dr. Gartner is Chairman.

Section 23. (See 41)

Establishment by American Medical Association of Section on Industrial Medicine

Dr. Benjamin M. Bernstein, Kings: This is the second resolution I have to present:

"Whereas, there is at present in operation a Council on Industrial Health of the American Medical Association; and

"Whereas, industrial medicine is becoming of increasing importance to the entire medical pro-

fession; and

"Whereas, the subject of industrial medicine as a specialized study ought to be encouraged and stimulated both in graduate and undergraduate

medical training; and "Whereas, a forum for the exchange of ideas and projects and methods and progress ought to be provided on a national scale; therefore be it "Resolved, that the Medical Society of the State

of New York request the American Medical Association to establish a Section on Industrial Medicine."

SPEAKER BAUER: That resolution is referred to the Reference Committee on New Business B, of which Dr. Eggston is Chairman.

Section 24. (See 55)

Establishment by County Societies of Committees on Health Education

DR. BENJAMIN M. BERNSTEIN, Kings: This is the third resolution:

"Whereas, the education of the public in health matters is of the utmost concern to the organized medical profession; and

"Whereas, the means and methods to be pursued in carrying on the education of the public ought to be and remain in the control of the county and state societies; therefore be it

"Resolved, that the Medical Society of the State of New York urge each county society to establish a Committee on Health Education either as a separate committee or as a subcommittee of the Committee on Public Health, in order to effectively carry on this very important adjunct of medical practice."

SPEAKER BAUER: That is referred to the Reference Committee on New Business A, of which Dr. Carroll is Chairman.

Section 25. (Sec 47)

#### Recruitments for New York State Guard

DR. LAURANCE D. REDWAY, Westchester: May I bespeak the sympathetic listening to the reading of the following resolution on the part of this House:

"Whereas, the New York State Guard is seriously in need of officers as well as enlisted personnel, medical as well as line; and

"WHEREAS, the existence of the New York State Guard is required by the Constitution of the

State; and

"WHEREAS, more and more Federal troops are removing from the area of the continental United States, and thereby the State Guards of all states become of greater importance as the first line of defense in any internal disturbance, be it from Fifth Column activities or the disasters of nature:

be it "Resolved, that the Medical Society of the State of New York urges every physician in New York State to apply immediately to his nearest unit of the New York State Guard to ascertain whether or not his services are needed; and be it further

"Resolved, that every physician in the State of New York contact as many individuals as possible in his territory between the ages of seventeen and fifty-five with the view of urging them to enlist immediately in the Guard for training in either medical or line-troop duty."

SPEAKER BAUER: Referred to the Reference Committee on New Business C, of which Dr. Kenney is Chairman.

Section 26

Constitution and Bylaws-Proposed Amendment to Chapter XVI, Section 2-Action Delayed One

Dr. George W. Kosmak: This is a proposed amendment to the Bylaws, Chapter XVI, Section 2, to read as follows:

"All papers read before the Society at its Annual Meeting by its members shall become the property of the Society, but shall not be accepted neces-sarily for publication in the New York State JOURNAL OF MEDICINE unless approved by the Editor responsible for this function.

SPEAKER BAUER: This being an amendment to

Section 16

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### Women Medical Students and Interns

DR. EMILY D. BARRINGER, New York: I should like to present the following resolution:

"Whereas, the Medical Society of the State of New York has had the vision and courage to endorse and expedite the securing of commissions in the Medical Corps of the Army and Navy for women physicians; and

"Whereas, the satisfactory commissioning of women physicians in the Medical Corps depends on a supply of well-trained applicants; and

"Whereas, the premedical and medical education of women physicians has been seriously affected by the accelerated medical educational program of the Army and Navy, in which the best interests of the women physicians have been ignored, and there is no national standardization in regard to the status of the woman medical student, she being in the position of the proverbial stepchild, while the man medical student is receiving every educational and monetary consideration from the government; and

"Whereas, the woman physician is held equally responsible in the eyes of law, because the same license to practice medicine is issued to her as to

her brother colleague; therefore be it "Resolved, that the Medical Society of the State of New York appoint a special committee to study the problem of the status of the woman medical student and intern; that this committee be instructed to evaluate the many difficulties of the problem, and have power to act to correct them; further, that on this committee there should be at least two women physicians who are known to be vitally interested in the matter, and that one of these women should be the incoming President of the American Medical Women's Association, who is a member of our Society."

SPEAKER BAUER: That is referred to the Reference Committee on New Business B, of which Dr. Eggston is Chairman.

Section 19. (Sec 46)

Noninclusion of X-Ray and Anesthesia in Any Hospital Service Plan

Dr. Thurber LeWin: I am instructed by the Medical Society of the County of Erie to present the following resolution:

"Whereas, a motion was made, seconded, and carried that the Medical Society of the County of Erie solicit the aid of the State Society against the inclusion of x-ray and anesthesia in any Hospital Service Plan; therefore be it "Resolved, that the State Society establish a definite stand on this matter."

SPEAKER BAUER: That is referred to the Reference Committee on New Business C, of which Dr. Kenney is Chairman.

Section 20. (See 54)

Special Membership Fee for Interns and Residents

Dr. Thurber LeWin: This is also being introduced upon the instruction of the Medical Society of the County of Erie:

"Whereas, it would be in the best interests of the younger men to join the State Society; therefore be it

"Resolved, that interns and residents in hospitals be permitted to join the organization at a reduced fee"

SPEAKER BAUER: That is referred to the Reference Committee on New Business A, of which Dr. Carroll is Chairman.

Section 21. (Sec 49)

#### 1945 Meeting Invitation to Buffalo

DR. THURBER LEWIN: This is the third resolution being introduced upon instruction of the Medical Society of the County of Erie:

"Whereas, the 1943 Annual Meeting of the Medical Society of the State of New York was a

great success in Buffalo; and

"Whereas, Dr. Herbert H. Bauckus, your

President-Elect, is a Buffalonian; and

"Whereas, the Medical Society of the County of Eric would deem it an honor and privilege to have its colleagues convene there again; therefore

be it "Resolved, that the Medical Society of the County of Eric extend an invitation to the Medical

Society of the State of New York to hold its 1945 Annual Meeting in Buffalo." SPEAKER BAUER: That is referred to Reference Committee on New Business C, of which Dr. Kenney

is Chairman.

Section 22. (See 39)

### United Medical Service

DR. BENJAMIN M. BERNSTEIN, Kings: This is a resolution concerning the United Medical Service:

in the interests of public health and welfare, without endangering medical standards, threatening the professional interests of the practitioner or the financial capacity of our people."

SPEAKER BAUER: That is referred to the Reference Committee on New Business C, of which Dr. Kenney is the Chairman.

Section 30. (See 43, 82)

### Enforcement of Medical Practice Act

Dr. E. Leslie Burwell, Westchester: This concerns the enforcement of the Medical Practice Act:

"Whereas, the Medical Practice Act of the State of New York defines the practice of medicine as follows: 'A person practices medicine . . . . who holds himself out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity, or physical condition, and who shall either offer or undertake, by any means or method, to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity, or

physical condition'; and
"Whereas, chiropractors are practicing medicine throughout the State of New York within the definition of the practice of medicine above

quoted; and
"Whereas, New York State likewise has a clear and satisfactory definition of the standards of education and training to be required of anyone who seeks to practice medicine and these stand-ards are not met by chiropractic practitioners; therefore, be it

"Resolved, by the House of Delegates of the Medical Society of the State of New York, that it be recommended to the Governor and the Legislature of the State of New York that the Medical Practice Act be enforced in the interests of the health and welfare of the citizens of this State."

SPEAKER BAUER: That is referred to the Reference Committee on New Business B, of which Dr. Eggston is the Chairman.

Section 31

Constitution and Bylaws—Proposed Amendment to Section 2 of Chapter XV of Bylaws-Action Delayed One Year

Dr. Ezra A. Wolff: This is presented on behalf of the Medical Society of the County of Queens:

"It is proposed to amend the first paragraph of Section 2, Chapter XV, of the Bylaws to read as follows: 'Chapter XV, Section 2. When an active member in good standing in any component county medical society removes to another county in this State, transfer of his name to the roster of the county society to which he removes shall be contingent upon the acceptance of the board of censors or comitia minora of the latter society. Such transfer shall be made at the member's request and be effected without cost to him and provided that he files a certificate with the secretary signed by the president and secretary of the component society from which he removes as to his good standing in such society. No member, however, shall be an active member of more than one component county society, nor shall any component county society accept a physician residing in another county in any other way than in accordance with the law governing transfers."

SPEAKER BAUER: This need not be acted upon at the present time because it contemplates a change in the Bylaws of the State Society. It will, therefore,

lay over in the hands of the Secretary for one year, and after publication will be presented again for action next year by the House.

Section 32. (See 56)

Approving Action of American Medical Association on Noninclusion of Medical Services in Hospital Insurance Plans

DR. STEPHEN H. CURTIS, Rensselaer: This is from the Section on Pathology:

"WHEREAS, the Council of the Medical Society of the State of New York has affirmed the position of the American Medical Association in opposing the inclusion of pathology, radiology, anesthesia, physical therapy, or any other form of the practice of medicine in a voluntary hospital or Blue Cross Plan: and

"Whereas, it is opposed to hospitals accepting contracts of this kind and proposes that these insurance contracts for medical services be cared for by the voluntary nonprofit medical care plan;

"Resolved, that this House of Delegates go on record as approving this action by the American Medical Association."

SPEAKER BAUER: That is referred to the Reference Committee on New Business A, of which Dr. Carroll is the Chairman.

Section 83. (See 42)

Opposition to Medical Section of the Wagner-Murray-Dingell Health Control Bill

DR. STEPHEN H. CURTIS, Rensselaer: This is from the Third District Branch:

"Whereas, it is the sentiment of the representatives of the component county societies of the Third District Branch, developed at a meeting held in Albany, January 19, 1944, that they are unanimously opposed to the Medical Section of the Wagner-Murray-Dingell Health Control Bill;

be it
"Resolved, that the House of Delegates of the
Resolved, that the House of New York take Medical Society of the State of New York take action in expressing its opposition to the Medical Section of this Bill."

SPEAKER BAUER: That is referred to the Reference Committee on New Business B, of which Dr. Eggston is the Chairman.

Section 34. (See 77)

Malpractice Insurance

Dr. Thomas M. D'Angelo, Queens: This is presented on behalf of the Medical Society of the County of Queens:

"WHEREAS, it has come to the attention of the Comitia Minora of the Medical Society of the County of Queens, Inc., that there are other insurance carriers writing malpractice insurance in the metropolitan area at a premium rate considerably less than the rate under our present group

plan; and
"Whereas, the contract offered by these companies is broader in many respects and affords a

more complete coverage; and "Whereas, many men formerly insured under the group plan have dropped that insurance and are taking out individual contracts; and

"WHEREAS, such practices will eventually disrupt the State Group Plan; therefore be it "Resolved, that the entire matter of the selecthe Bylaws, no action is necessary upon it at this time, but it will remain in the hands of the Secretary for one year, when, after due publication, it will come up for consideration next year by this House.

Section 27. (Sec 48)

# Appointment of Reference Committees of American Medical Association

Dr. C. James F. Parsons, Weslchesler: This resolution is being proposed at the direction of the Weslchester County medical Society:

"Whereas, Section 1 of Chapter X of the Bylaws of the American Medical Association provides that 'immediately after the organization of the House of Delegates at each annual session, the Speaker of the House of Delegates shall appoint from the members of the House such committees as may be deemed expedient by the House of Delegates. Each Committee shall consist of five members, unless otherwise provided, the chairman to be specified by the Speaker. These Committees shall serve during the session at which they are appointed.' and

"Whereas, in the interest of assuring proper representation to various opinions and viewpoints in the personnel of reference committees dealing with major policies or controversial questions, it would seem desirable that the House of Delegates have an opportunity to pass upon the appointments to these committees as proposed by the

Speaker of the House; therefore, be it

"Resolved, that the Delegates from the Medical
Society of the State of New York to the House of
Delegates of the American Medical Association be
instructed to present a proposed amendment to
the Bylaws of the American Medical Association
whereby the following sentences would be added
to Section 1, Chapter X, of the Bylaws as above
quoted: "The proposed appointments to all reference committees shall be submitted to the House
of Delegates for approval and confirmation by a
majority of the Delegates present. Members of
the House of Delegates shall then have an opportunity to offer motions for removal or addition of
names of individual delegates for any of these
committees, before it shall be confirmed by the
House of Delegates."

SPEAKER BAUDR: That is referred to the Reference Committee on New Business C, of which Dr. Kenney is Chairman.

Section 28. (See 57)

#### Proposed Amendment of Bylaws of the American Medical Association Relative to the Powers of the Board of Trustees

Dr. C. James F. Parsons, Westchester: This is another resolution introduced at the instruction of the Westchester County Medical Society:

"Whereas, it was clearly the intent of the framers of the Constitution and Bylaws of the American Medical Association that the House of Delegates shall be the supreme authority for the determination of the Association's policies; and

"Whereas, Section 1 of Chapter VI of the Bylaws of the American Medical Association provides in part as follows: 'All resolutions or recommendations of the House of Delegates pertaining to the expenditure of money must be approved by the Board of Trustees before the same shall become effective'; and

"WHEREAS, this blanket authority conferred

upon the Board of Trustees of the American Medical Association may be, and has been, used as a veto power on the part of the Board of Trustees upon resolutions adopted by the House of Delegates expressing the clear will and mandate of the House; and

"Whereas, it is clearly not in the best interests of the profession nor in harmony with democratic procedure for the Board of Trustees, existing only as agent of the House of Delegates, to have the power and authority to countermand the declared purposes of the House of Delegates through the withholding of necessary funds for the accomplish-

ment of such purposes; therefore, be it
"Resolved, that the Delegates of the Medical Society of the State of New York to the House of Delegates of the American Medical Association be instructed to propose an amendment to the Bylaws of the American Medical Association at the 1944 next meeting of the House of Delegates of the American Medical Association, providing that the sentence in Section 1 of Chapter VI, of the Bylaws of the American Medical Association reading 'All resolutions or recommendations of the House of Delegates pertaining to the expenditure of money must be approved by the Board of Trustees before the same shall become effective' shall be deleted and that the following sentences shall be substituted for the deleted sentence: 'It shall be the duty of the Board of Trustees to make effective in the shortest possible time the expressed purposes and mandates of the House of Delegates as embodied in its resolutions and formal recommendations. In case the Board of Trustees shall object to such a mandate, it shall report its reasons to the House of Delegates at the earliest opportunity. The action of the Board of Trustees may then be overridden by a vote of two-thirds of the Delegates present and voting "

SPEAKER BAUER: That is referred to the Reference Committee on New Business A, of which Dr. Carroll is the Chairman.

Section 29. (See 45)

# Promotion of Working Relationship with State Agencies

DR. RALPH T. B. Todd, Westchester: I wish to present the following resolution:

"Whereas, His Excellency, the Governor, in his annual message, recognized that the State 'has an essential function' in meeting the needs of its citizens for good medical care; and

"Whereas, the Medical Society of the State of New York has notified the Governor, by means of a letter from the Council of the Society, that its membership is ready and willing to cooperate in every possible way with the State government, in order to assure to all citizens of the State adequate and effective medical care; and

"WHEREAS, various committees of the Medical Society of the State of New York have established close working relationships in recent years with various departments of the State government;

therefore be it "Resolved, that the House of Delegates approves the efforts of the Council, through its various appropriate committees, in furthering these relations and in assisting the State gavernment in every feasible way, to accomplish the objectives set forth by Governor Dewey in his annual message—namely, 'a partnership of government and the medical profession functioning cooperatively

has carefully reviewed the Report of the Council, Part III, "School Health Program." We note that the Council has appointed three physicians to act in an advisory capacity to the State Education Department, and that these physicians, acting with the Subcommittee on Child Welfare, have assisted in the preparation of a syllabus for health-teaching in the schools. We note interest in this subject also by the State Department of Health and the New York State Association of School Physicians.

Another paragraph of the report states that examination of teachers and other school personnel, as art of the Tuberculosis Control Program, is receiving the attention of the State Education De-

There is also a statement of the principal activities of the Medical Society of the State of New York in school health, with the added note that there has been satisfactory cooperation between the State Departments of Education and of Health, the New Jork State Association of School Physicians, the Dental Society of the State of New York, several other organizations (unnamed) concerned with the School Health Program, and the Medical Society of the State of New York. We note with approval that to date forty-five of the sixty-one county medical societies of the State have appointed committees or designated representatives in school health.

We recommend the adoption of this part of the Report of the Council, and I so move.

. The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Dr. SCHIFF: Your Committee notes that one important phase of the school health program apparently has not been given the attention it merits either in this or previous reports of this Council Subcommittee.

We refer to the matter of instruction of health teachers. At the present time the percentage of eachers qualified to give health instruction is very The courses in public health instruction, available in the normal school in state teachers' colleges, are not utilized to their full advantage. If we are to have good health instruction in the schools, we must have a sufficient number of well-qualified teachers.

We therefore recommend to the Subcommittee that they place special emphasis on this phase of the subject during the coming year.

I move the adoption of this portion of the report. .The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. SCHIFF: I now move the adoption of the report of the Reference Committee, consisting of Leo F. Schiff, Chairman, Louis A. Friedman, Alfred M. Hellman, Ralph I. Lloyd, and Ralph Sheldon, as a

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried..... Section 38. (See 6)

Report of Reference Committee on Report and Supplementary Report of Council—Part I: Post-

DR. ALBERT F. R. ANDRESEN, Kings: In spite of war conditions which obviously must have hampered its efforts, the Council Committee on Public Health and Education, under the brilliant leadership of Dr. Oliver W. H. Mitchell, its chairman, has not only continued but broadened its work in postgraduate education. By obtaining the further cooperation

and assistance of the New York State Department of Health, Dr. Mitchell has succeeded in lightening the financial burden which the expanding work of his committee would entail. Cooperation and advice from the New York State Department of Labor, the Dental Society of the State of New York, the medical schools of the State, and various health, civic, farm, and welfare organizations have resulted in a program of postgraduate education of which our Society should be very proud, and which may well serve as a pattern for like efforts in other parts of the world. A list of the courses and lectures available through the efforts of the Committee, which was previously mimeographed, was this year printed and now makes a volume, the Course Oulline Book, which has been which places the Madical widely distributed, and which places the Medical Society of the State of New York in the front rank of postgraduate teaching institutions.

The instruction has been given under two categories, the Committee furnishing speakers and paying their expenses plus an honorarium:

1. Lectures or series of lectures have been given to county medical societies which have selected them from the Course Outline Book. Sixty-two such lectures were given in eighteen counties.

2. Regional Meetings and Teaching Days have been arranged for in seven regions of the State, five on cancer, and one each on nutrition and tuberculosis and chest diseases, with a total of twenty-four lec-

The Committee and the Department of Health are now planning an intensive campaign of instruction in penicillin therapy for the county medical societies and lectures on medical and surgical care of home and farm accidents at meetings of county medical societies and other medical groups.

In all, ninety-six lectures were given in twentyseven counties, sixty-eight lectures having been given jointly with the New York State Department of Health. One more is being arranged for.

Your Reference Committee recommends that the report of the Council, Part I, be accepted with the thanks and appreciation of the Medical Society of the State of New York, and I so move.

... The motion was seconded, and as there was no discussion, was put to a vote, and was unanimously

DR. ANDRESEN: That completes the report of the Reference Committee on Report of the Council and Supplementary Report, Part I, consisting of Albert F. R. Andresen, Chairman, Emil Koffler, Leon M. Kysor, Beverly C. Smith, and Charles C. Trembley. Speaker Bauer: Thank you, Dr. Andresen!

Section 39. (Scc 22, 50-51)

Report of Reference Committee on Report of eport or kererence commutee on keport or Council—Part VII: Nonprofit Medical Expense Insurance; Resolution on United Medical Service

DR. ALBERT A. GARTNER, Eric: Your Reference Committee on Nonprofit Medical Expense Insurance has reviewed with a great deal of interest a report of the Council Committee on this subject. We agreed that nonprofit medical expense insurance is an important answer to the Wagner-Murray-

We agreed that there is a great desire on the part of the public to budget and insure against the cost of medical care. The public most certainly fears and despises the admixture of politics into medicine The public wants to be unhampered in the choice of its physicians.

The Reference Committee recommends that the

tion of the carrier of the malpractice insurance be restudied by a special committee appointed by the Council to survey the entire field in order that we may get the most complete and adequate coverage with the maximum saving on premiums for the membership of the State Society; and further be it

"Resolved, that this Committee's report be referred to the Insurance Committee for final study and that each county society be informed, after the selection of the carrier, the reasons for that selection and also the reasons for the rejection of the other competitors so that each county society may be in a position to properly inform their membership in order that we may encourage 100 per cent unity in our State Malpractice Group coverage."

SPEAKER BAUER: That is referred to the Reference Committee on Report of the Council, Part XI, Malpractice Defense and Insurance, Dr. Krakow, Chairman.

Are there any further resolutions to be presented that this time?

.... There was no response. . . .

SPEAKER BAUER: When we recess, which we will in a moment, I will ask you to bear in mind that the financial success of any of our meetings depends very largely on the cooperation of our technical exhibitors. I hope every member of the House will feel that it is his duty to visit all these technical exhibits, so that they may know you are interested in what they are doing to help make our meeting successful. You have to go through this exhibit area both on your way to the House and out of it, so that is an excellent time to visit them. I hope everyone will visit each exhibit at least once while the meeting is on.

This is the last call for this morning: Are there

any other resolutions?

...There was no response....

Speaker Bauer: If there are none, the House will be in recess until 3:30 this afternoon. Please be prompt.

(At 11:35 A.M., a recess was taken.)

### Afternoon Session

May 8, 1944

The session convened at 3:30 P.M., pursuant to recess.

SPEAKER BAUER: The House will be in order.

Section 35. (See 1)

### Report of Reference Committee on Credentials

SPEAKER BAUER: The Report of the Credentials Committee on the morning attendance was: county delegates, 129; officers, 19; past-presidents, 5; section delegates, 7; district delegates, 2; or a total of 162.

The Manhattan Room, where the majority of the Reference Committees have been meeting, will not be available after 4:00 r.m. this afternoon. Any Reference Committees that still need a place to meet will have to find some committee member's room.

The tables for the New Business Reference Committees will be available in the anteroom during today, but will not be available there tomorrow.

All Reference Committees will find stenographers in Conference Room 8 from 8:30 on tomorrow morning. They were also there today.

Are there any Reference Committee Chairmen ready to report?

Section 36. (See 12)

### Report of Reference Committee on Report of the Council—Part V: Publications and Medical Publicity

DR. WILLIAM B. RAWLS, New York: The Committee approves of the publicity on medical expense insurance but believes that greater attention should be given to this subject. The Committee recommends to the Council that an additional editorial department on medical expense insurance be established to publish regularly such information as is available, and further recommends that for a period of one year free advertising space, as well as reading matter in the text, be given to those organizations approved by the Medical Society of the State of New York. The amount of space allotted shall be left to the discretion of the Council.

I move the adoption of this portion of the report.
...The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously corried.

mously carried.....
Dr. Rawls: The Committee recommends to the House of Delegates that the recommendation of the Special Committee on Publications be approved.

....The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.....

DR. RAWIS: In reference to printing a new Directory at present, it is almost impossible to secure paper and personnel. The shortage of paper is acute, and it is difficult to obtain enough paper for publication of the JOURNAL. It might be possible to secure paper later, and your Committee recommends that no effort be made to publish a Directory at present, but that the Council be instructed to publish a Directory when, as, and if they believe it is feasible.

I move the adoption of this portion of the report.

... The motion was seconded, and as there was no discussion, it was put to a vote, and was

unanimously carried.....

Dr. Rawls: The committee noted with interest the change of business arrangements with regard to advertising in the JOURNAL. This was made possible by the experience and diligence of your Publication Committee, and they note with pleasure that there is now an operating surplus.

I move the adoption of the report of the Reference Committee, consisting of William B. Rawls, Chairman, J. Lewis Amster, Joseph P. Henry, Thurber LeWin, and Lyman C. Lewis, as a whole. The last part is purely informative, and requires proceeding exting

no specific action.
... The motion was seconded, and as there was no discussion, it was put to a vote, and was unani-

mously carried.....

Section 37

Report of Reference Committee on the Report of the Council—Part III: School Health

Dr. Leo F. Schiff: Your Reference Committee

Care are subject to the existing law, but the Reference Committee feels that the various portions of the report should receive careful consideration and discussion by the House of Delegates:

 The Resultement That Payment Be Made Directly to the Physician or the Hospital Rendering Serrice.

We scree with the view of the Council that this money should be paid directly to the servicemen's wives, thereby eliminating a third party in the relationship of physician to patient, and also discrediting any factor which might tend towards socializing medicine.

2. The Provision of Hospital Care at the "Ward Cost per Patient Day" to be Determined by a Prearranged Formula.

We agree with the opinion of the Council Committee, but feel it should be the privilege of the patient to be allowed to pay more for better accommodations if she so desires.

Dr. George W. Kosmar: Should not each of

these be acted on separately?

SPEAKER BAUER: Yes.

Dr. Donovan: In that case I move the adoption of Paragraph I.

....The motion was seconded..... SPEAKER BAUER: You have before you the motion of the Chairman of the Reference Committee on the adoption of that portion of the report which approves the action of the Committee, and seconds the statement that the emoluments should be paid direct to the patient and not to the physician, a stand which was previously taken by the House of Delegates of the American Medical Association. Is there any discussion on it?

DR. GEORGE W. KOSMAR, New York: It seems to me that this is out of order. The method of payment was established by Act of Congress. If we want to attack that we will have to do it in a different way from the one which is proposed here.

think this recommendation is meaningless. SPEAKER BAUER: I understand that the motion of the Chairman of the Reference Committee is merely stating a principle, and that he has not made a motion as to any remedy for the situation. Is

that correct?

DR. DONOVAN: Yes. The Reference Committee, before we got very deeply into this, agreed that all of this was left up to the Senate and House of Representatives, and that we had nothing to say about it; but we did believe we should make some recommendations here. Anything we do here is not binding in any respect-we realize that-but we just recommend that the House of Delegates back us up in our enunciation of certain principles, even though the restatement of those principles would not accomplish very much, for the matter would have to go through Washington, as Dr. Kosmak has just stated.

Speaker Bauer: I take it that this is merely an expression of opinion on the part of the Reference Committee, and if it is adopted on the part of the House of Delegates it will merely be as a statement

of principle.

Is there any further discussion?

DR. ABRAHAM KOPLOWITZ, Kings: Dr. Kosmak's point, I believe, is a good one. There should be a mention here about memorializing Congress to make the change. That can be added.

the change. That can be added.

SPEAKER BAUER: Do you wish to make an amend-

ment to that effect?

Dr. Koplowitz: Dr. Kosmak has made it, so I will second it

SPEAKER BAYER: He did not make a motion. Dr. Koplowitz: Then I will make it.

DR. JOSEPH A. GEIS, Essex: Before we put the motion, was this an Act of Congress or an interpretation of an Act of Congress as developed by the Children's Bureau? I question whether Congress stated that the money had to be paid directly to the physician. I believe that is an interpretation of the Children's Bureau on that Act.

Dr. Kosman: May I correct that? It is an Act of

Speaker Bauer: It is in the Appropriations Act. I believe, Dr. Geis.

Dr. Kosmak: Yes. Speaker Bauer: Dr. Koplowitz has made b motion to amend the Reference Committee's report by inserting in it a recommendation that the Medical Society of the State of New York memorialize Congress relative to our opinion in this matter. Is the amendment seconded:

DR. THOMAS M. D'ANGELO, Queens: Yes, I will second it.

Speaker Bauer: It has been moved and seconded that the motion be amended as just stated. Is there

any discussion on the amendment? DR. JAMES F. ROONEY, Albany: I differ from the opinion stated that this method of payment is specified in the Act. During the last five months there has been a great deal of discussion on this matter in Albany County and many of the upstate counties, and a very careful study has been made of both the original act and the amended act which appropriates this money to the Children's Bureau to be dispensed in such manner as they shall deter-mine by regulation. The responsibility as to the manner in which this money is to be distributed through the individual state departments is not embodied in the Act of Congress. It is purely and simply a matter of regulation by the Children's Bureau under the Department of Labor.

Memorializing Congress, in my opinion, may help, perhaps, to have Congress amend the Act so that it will provide or at least one may hope that Congress will so direct—that the fund shall be expended in the manner which the Society seems to wish. own feeling as to how much will be gained by asking Congress to amend this Act in the present state of the country and the administration is not very hope-

SPEAKER BAUER: Is there any further discussion? DR. THOMAS M. D'ANGELO, Queens: I move the matter be tabled pending a complete interpretation of the Act before this body.

SPEAKER BAUER: You cannot table the amend-

ment without tabling the whole matter.

Dr. D'ANGELO: Right. That is why I am moving to table the entire matter--for that very reason. DR. ROONEY: I should like to

Speaker Bauer: You cannot discuss a motion

to table.

Dr. Rooner: What is the motion—to table definitely or indefinitely?

SPEAKER BAUER: No time limit, as I understand

Dr. D'ANGELO: To table until we get an interpretation of the Act.

SPEAKER BAUER: That is postponing action, then, and not tabling.

DR. ROONEY: Right; that is what I thought. SPEAKER BAUER: You may discuss it, then. Dr. Rooney: I hope that the House will not italicized statement of the cost for various coverages

as mentioned on page 754 be deleted.

The Reference Committee recommends that the Council appoint a full-time Director of Medical Expense Insurance or establish a bureau. Such Director should be thoroughly conversant with insurance matters. It is hoped by our Committee that a state-wide plan may soon be evolved.

I move the adoption of this portion of the report. SPEAKER BAUER: This portion of the report contains two items, one of which is also in the hands of another reference committee-namely, the Reference Committee which is considering the report of the Planning Committee for Medical Policies, having to do with the appointment of a full-time Director of Medical Expense Insurance. Therefore, the Chair-man would suggest that that portion of the report be tabled until after the Reference Committee on the Report of the Planning Committee for Medical Policies has been given so that they may be considered together.

Dr. HARRY ARANOW, Bronx: I so move.

SPEAKER BAUER: I take it your motion is that the report of the Reference Committee on Report of the Council, Part VII, be adopted, as it pertains to the deletion of the italicized statement of the cost for various coverages on page 754 and that the portion pertaining to the establishment of a full-time Director of Medical Expense Insurance be tabled until the Planning Committee's report is considered, when it will be considered in connection with the report of the Reference Committee that has that under consideration.

Dr. Aranow: Yes.

....The motion was seconded, and was put to a

vote, and was unanimously carried....

SPEAKER BAUER: The motion is carried, and that portion of the report of the Reference Committee is adopted, with the exception of the part which per-tains to the establishment of a full-time Director of Medical Expense Insurance, which is tabled until the Reference Committee on the Report of the Planning Committee for Medical Policies reports, when the two will be considered together.

DR. GARTNER: The Reference Committee is strongly in favor of the hospitals not practicing medicine, and approves the report of the House of Delegates of the American Medical Association on this matter as published on pages 755 and 756 of

the Annual Report of the Council.

Your Reference Committee on Nonprofit Medical Expense Insurance unanimously endorses a resolution that was introduced by Dr. Benjamin M. Bernstein in regard to the merged United Medical Service, and moves the adoption of this resolution as a House of Delegates.

I move the adoption of this portion of the report.

... The motion was seconded....
SPEAKER BAUER: Would you outline the purpose of the resolution referred to as having been introduced by Dr. Bernstein this morning, so that the House may be familiar with it? There were a good many resolutions introduced this morning, and I am sure that the Delegates don't know which one it is that is specifically referred to in the report of your Reference Committee.

DR. GARTNER: That resolution, introduced this morning by Dr. Bernstein, of Kings, reads:

"WHEREAS, the United Medical Service has been organized by a merger of the Community Care Plan and the Medical Expense Fund of New York; and

"WHEREAS, it is urgent that a plan for health

insurance which would be workable and salable as well as equitable to both the doctor and the public be put into operation without further delay;

"WHEREAS, the rapid sale of this plan to a large number of subscribers will be of enormous value in counteracting the attempts being made by government to control the practice of medicine;

"WHEREAS, the United Medical Service is a plan for health insurance entirely under control of the medical profession; and

"Whereas, this plan has an adequate amount of cash on hand to pay the bills for medical care; and "WHEREAS, this plan does not ask the doctor to

contribute to the financial setup or for the carrying on of its activities; and

"WHEREAS, it is for the benefit of the physician as well as the patient that the provisions of this plan provide for free choice of physician without the restrictions imposed by a panel system; therefore be it

"Resolved, by the House of Delegates of the Medical Society of the State of New York in convention assembled on May 8, that it does hereby approve the plan of United Medical Serv-

ice; and be it further "Resolved, that it urges every practicing physician in the seventeen counties governed by the scope of the plan to give it his whole-hearted support and signify his or her willingness to serve in accordance with the provisions of the plan as soon as support is formally requested.

SPEAKER BAUER: You have before you the motion of the Chairman of the Reference Committee for the adoption of this portion of the report, which carries with it the approval of the resolution which has just been read. Is there any discussion?

DR. THOMAS M. D'ANGELO, Queens: The resolu-

tion specifies the Community Care Plan and the United Medical Service. That is an error. It is the United Medical Service all right, but the other is the Community Medical Care or Community Medical Service.

SPEAKER BAUER: A correction of title.

DR. D'ANGELO: Right.

SPEAKER BAUER: I am sure the Chairman of the Reference Committee will make that change without any specific motion.

DR. GARTNER: Yes.

SPEAKER BAUER: Is there any other discussion? ... The question was called for, and the motion was put to a vote, and was unanimously adopted...

SPEAKER BAUER: The resolution, as amended, is

adopted. DR. GARTNER: Mr. Speaker, I move the adoption of the report of the Reference Committee as a whole,

with the exception of that part that has been tabled.

SPEAKER BAUER: Your motion is out of order We will wait until we again consider that portion of the report, and then you may move for the adoption of the report as a whole. We shall have to call you back for that.

Section 40. (See 64, 87)

Report of Reference Committee on Report of Council-Part II: Maternal and Child Welfare

The Reference DR. JOHN T. DONOVAN, Erie: Committee realizes and appreciates the enormity of the work done by the Special Committee of the Council, and realizes fully that the provisions of the report concerning Emergency Maternity and Infant

Your Reference Committee on New Business B approves and moves the adoption of the above resolution.

.. The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried .....

Section 42. (See 33)

Report of Reference Committee on New Business B-Opposition to Medical Section of the Wagner-Murray-Dingell Health Control Bill

Dr. A. A. Eggston, Westchester: Resolution introduced by Dr. Stephen H. Curtis, of the Third District Branch, reading:

"Whereas, it is the sentiment of the representatives of the component county societies of the Third District Branch developed at a meeting held in Albany, January 19, 1944, that they are unanimously opposed to the Medical Section of the Wagner-Murray-Dingell Health Control Bill; be

"Resolved, that the House of Delegates of the Medical Society of the State of New York take similar action in expressing its opposition to the Medical Section of this bill.

Your Reference Committee on New Business B approves, and moves the adoption of the above resolution.

... The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried. . . .

Section 43. (See 30, 82)

Report of Reference Committee on New Business B-Enforcement of Medical Practice Act

Dr. A. A. Eggston, Westchester: Resolution introduced by Dr. E. Leslie Burwell, of the Westchester County Medical Society, pertaining to the enforcement of Medical Practice Act, reading:

"Whereas, the Medical Practice Act of the State of New York defines the practice of medicine as follows: 'A person practices medicine. . . . who holds himself out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity, or physical condition, and who shall either offer or undertake, by any means or method, to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity, or physical condition'; and "Whereas, chiropractors are practicing medicine throughout the State of New York within

the definition of the practice of medicine above quoted; and

"WHEREAS, New York State likewise has a clear and satisfactory definition of the standards of education and training to be required of anyone who seeks to practice medicine, and these standards are not met by chiropractic practitioners; therefore be it

"Resolved, by the House of Delegates of the Medical Society of the State of New York, that it be recommended to the Governor and the Legislature of the State of New York that the Medical Practice Act be enforced, in the interests of the health and welfare of the citizens of this State.

Your Reference Committee decided that there should be a slight change in the "Resolved" part.

Your Reference Committee on New Business B approves of this resolution, but wishes to substitute the following paragraph for the last paragraph of the original resolution, namely:

"Resolved, by the House of Delegates of the Medical Society of the State of New York, that it be recommended to the Governor and the Legislature of the State of New York that the Medical Practice Act be more rigidly'

and those are the two words we inserted-"more rigidly"-

"enforced in the interests of the health and welfare of the citizens of this State."

Your Reference Committee on New Business B moves the adoption of this modified resolution.

... The motion was seconded.....

SPEAKER BAUER: You have before you the report of the Reference Committee which approves the resolution as read with the insertion of the two words "more rigidly" before the word "enforced." It pertains to the enforcement of the Medical Practice Act, particularly with respect to chiropractors. Is there any discussion?

Dr. John J. Masterson, Kings: How are the Legislature and the Governor to know what we mean if we just say that the law is to be more rigidly enforced? I don't see any reason why we should call their attention to the fact that the chiropractors are violating the law every day that they practice.

SPEAKER BAUER: Is there any further discussion? Dr. Jacob Werne, Queens: The technic is very simple. If every county medical society had an active committee for the investigation of illegal practice, and referred these cases to the Attorney General's office, we might get some action. If this resolution were so amended as to petition the Governor to instruct his Attorney General to honor recommendations from the county societies, and investigate them on their initiative (these charges against

chiropractors) we might put some teeth into this law.

Dr. Harry Aranow, Bronz: Far be it from me to try to protect the chiropractors, but I think we are wasting a lot of words. Those of you who have read the special report of the committee of the Legislature on this subject know that the legislators are aware of the fact that there are people practicing chiropractic in this State, and that the law is not being enforced. All they say is that it cannot be enforced, so it should be legalized. The testimony of our different Attorneys General will tell you the same thing: that it is almost impossible to convict a chiropractor of practicing medicine illegally. The law-enforcing agencies in this State have tried it over and over again, with no success, so I think that this resolution is simply a waste of words, because the legislators know about it, and if you force it too strongly they will legalize the practice of chiropractic. They tried to do that this year, and almost succeeded. I should like to get Dr. Lawrence's opinion on this matter too.

SPEAKER BAUER: The Chairman will be glad to grant the floor to Dr. Lawrence.

Dr. Joseph S. Lawrence: The matter of enforcing the Medical Practice Act is not simple. As Dr. Aranow has indicated, the legislators are aware of the fact that it is not being enforced. Attorney General has done his utmost to enforce it under the present law. There is a possibility, however, that the law could be changed so as to make it enforcible.

An effort was made a few years ago to enjoin the chiropractors from practicing, but that remedy was not available under the present law. I mean the effort that was being made was stopped because of legal difficulties. However, the law could be changed so that the cases would not be brought be-

adopt the amendment, but that it will take such action as will refer this matter to the Council for consideration and such disposition as in their opin-

ion may be feasible under the circumstances.

SPEAKER BAUER: The question now is on postponing action on this until we get a legal interpreta-tion. That takes precedence over the amendment. Is there any further discussion on postponing action?

... The question was called for .....

SPEAKER BAUER: All those in favor of the motion, which is to postpone action until later, will please say "Aye"; those opposed, "No." The Chairman is in doubt. Those in favor of postponing action will please rise and remain standing until they are counted; now those opposed will please stand. The motion is carried, 64 to 44. The matter is then postponed.

Go ahead with your report.

Dr. Donovan: I will reread Paragraph 2:

2. The Provision of Hospital Care at the "Ward Cost per Patient Day" to be Determined by a Prearranged Formula.

We agree with the opinion of the Council Committee, but feel it should be the privilege of the patient to be allowed to pay more for better accommodations if she so desires.

I move adoption of this portion of the report.

DR. EDWARD P. FLOOD, Bronx: I move that action on this portion also be postponed until we have the legal interpretation of the statute.

... The motion was seconded...

SPEAKER BAUER: The motion has been made that this portion of the report also be postponed until a legal opinion is secured. Is there any discussion

on the amendment?

DR. JACOB L. LOCHNER, JR., Albany: We have studied this matter a lot up in Albany County. We have read the Congressional Record, and have talked with our representatives down there, and as a result have found that it was the intent of Congress to allow a women to choose her own doctor and her own hospital accommodations and to supplement them if she wanted to, but that the Children's Bureau ruled otherwise.

Congress needs to have a little pressure put on it to get this matter out of the Children's Burcau's hands in order to do what they formerly intended; but they cannot do that unless we send some representatives down there to make that presentation to them. I understand that at the last meeting of the Committee which considered this matter not a single doctor was present to represent the Medical Society of the State of New York or the American Medical

Association.

SPEAKER BAUER: At the last hearing there were doctors present from both organizations.

Dr. Lochner: I mean that when this bill was

passed there were none present.

.... The question was called for, and the motion was put to a vote, and was carried to postpone action until a legal interpretation of the law is secured.... Dr. Donovan: We come now to:

3. Provisions for Remuneration of Physicians.

We agree with the Council Committee that the remuneration is low.

There will be no disagreement about that.

(Laughter) I make a motion that this portion of the Reference Committee's report be adopted. Do you think it is necessary to vote specifically on that?

SPEAKER BAUER: No. DR DONOVAN: The fourth paragraph is:

4. The Plan Provides for Additional Fees Where the Services of a Qualified Consultant Arc Required; But Makes No Provision for Recognizing the Extra Services of a Qualified Obstetrician or Pediatrician Where Such Physician Has Undertaken the Basic Maternity or Sick Infant Care of a Patient Under the Plan.

We recommend the passage of the Council Committee's belief that some system should be devised for recognition of extra services of the qualified specialist and for compensating him in keeping with the extra services rendered.

I move the adoption of this portion of the report.

... The motion was seconded...

Speaker Bauer: This portion of the report has to do with the recognition of specialists and their compensation under this program. Is there any discussion?

Dr. Harry Aranow, Bronx: This thing has been discussed at great detail in the Council and by the various committees. I know that the Commissioner of Health of the State of New York tried to get this thing before Congress, and did not succeed. I would move that action on this also be postponed until we get the whole interpretation. It is all part of the one thing. Let us get an interpretation of the whole law, and find out what it is all about before we vote.

.. The motion was seconded, and as there was no discussion, the motion was put to a vote, and was carried....

SPEAKER BAUER: It is postponed.
DR. DONOVAN: Will this whole report be postponed? If so, why go on with it?
SPEAKER BAUER: The Chairman suggests to the Chairman of the Reference Committee that he discontinue the report as it pertains to the matter of Emergency Maternity and Infant Care, as there may be other factors in the report which would fall into the same category, and on which action also would have to be postponed pending an interpretation of the law. Such a course would save time, so if the House has no objection we will let the Chairman of the Reference Committee step down and as soon as we are able to get the legal interpretation he will bring in his report again.

CHORUS: That is right.

SPEAKER BAUER: That course will be followed then. Thank you, Dr. Donovan!

Section 41. (Sec 23)

Report of Reference Committee on New Business B-Establishment by American Medical Association of Section on Industrial Medicine

DR. A. A. EGGSTON, Westchester: Resolution introduced by Dr. B. M. Bernstein, of Kings, regarding the establishment by the A.M.A., of a Section in Industrial Medicine, and reading:

"WHEREAS, there is at present in operation a Council on Industrial Health of the A.M.A.; and

"WHEREAS, industrial medicine is becoming of increasing importance to the entire medical profession; and

"WHEREAS, the subject of industrial medicine as a specialized study ought to be encouraged and stimulated both in graduate and undergraduate medical training; and

"WHEREAS, a forum for the exchange of ideas and projects and methods and progress ought to

be provided on a national scale; therefore he it "Resolved, that the Medical Society of the State of New York request the American Medical Association to establish a Section in Industrial Medicine."

a hundred to seven or eight hundred letters, and sometimes two or three thousand, complaining bitterly about it. Every chiropractor in the State of New York contributes a minimum of \$100 a year to his Society. I hesitate to say how that money is

used. I know, but I shall not repeat it.

The second thing is: Politically, the Education Department of the State of New York and the Board of Regents are not in favor of a rigid enforcement of the Medical Practice Act in relation to chiropractic. We have even had in past years the Education Department, either directly or indirectly, bring their influence to bear upon the legislators to pass a chiropractic licensing act.

I don't see how you are going to do anything about this resolution by amending it as has been proposed. We have tried practically everything except the Basic Science Act, and I am not so sure that that is the remedy. I feel this: that the one thing that must be done if we are going to get enforcement of the law is to develop a popular attitude toward that enforcement, because we can put law after law on the statute books, and if it has not popular support it will never be enforced; and, frankly, the Medical Practice Act in relation to chiropractors has not as yet popular support. This one conviction that was just spoken of as having occurred in Kings County is to the best of my knowledge the only conviction of which I have any recollection in the last five years. It is estimated that there are practicing chiropractors in the State of New York somewhere in the neighborhood of 2,800 to 3,400, and one conviction will not alter the situation.

One swallow does not make a summer, gentlemen. Furthermore, I am not so sure that the statement that was made about the appeal to the higher court may not allow this man to escape from justice. I feel, and I have so felt for several years. that we must get over our fear of political visitation, and we must be willing to carry and take the onus of bringing pressure to bear upon the Legislature poli-Second, we must enlist in our own communities a popular support for the enforcement of the Medical Practice Act. (Applause)

DR. CHARLES F. McCarty, Kings: This is not going to make me popular. There has been an awful lot of pressure brought to bear upon the legislators to pass a chiropractic bill this year. Probably, if it had not been for a legislative trick, the chiropractic bill would have been passed last spring. When the chairmen of the legislative committees of the county societies met at Albany last winter, we spent a great deal of time in discussing chiropractic, and I think Dr. Lawrence will tell you that he has a feeling that eventually some type of a chiropractic bill will pass.

I should like to amend this to provide that the Council appoint a committee to study the type of bill which the New York State Medical Society would approve to allow a chiropractic bill to go through, one which would certainly see to it that no chiropractor who is not as well educated as a physician could practice.

DR. JACOB WERNE, Queens: Point of order; there is already one amendment to the original motion.

DR. McCARTY: I know it.

SPEAKER BAUER: An amendment can be amended; furthermore, this was in the nature of a substitute rather than an amendment.

....The substitute motion was seconded..... Speaker Bauer: The question is on the sub-

stitution first of Dr. McCarty's motion for the suggested amended original motion.

DR. WERNE: May I speak on it? Speaken Bauer: Yes, after I finish stating it. The substituted motion is that it be referred to a committee to work out a plan whereby a satisfactory chiropractic bill could be enacted with our support, which would maintain the present standards of medical practice. I believe that is the sum and substance of it?

DR. McCarty: Yes.

Speaker Bauer: Do you wish to speak on the substitute?

Dr. Werne: Yes. I think Dr. McCarty just passed over to us in another color the basic science law or something like it. In considering this we lose sight of one very important consideration. This is not a matter of competition with the practitioners of this is a matter involving the public medicine; health.

It is contrary to the best interests of public health for a chiropractor to exist. If any State medical organization recognizes the right to exist of a cult which is as phoney as chiropractic is, then I think we do not deserve to be considered representatives of Organized Medicine. We should stick to the stand enunciated by Dr. Bauckus this morning in his President-Elect's address: under no code should chiropractic be permitted recognition.

DR. EZRA A. WOLFF, Queens: The Reference Committee on the Report of the Council, Part VIII, on Legislation, has a recommendation to make on this same subject concerning the adoption of an attitude toward a chiropractic bill. I would suggest that since the matter will come up again it might be worth while to await that report.

SPEAKER BAUER: Do you move that we postpone action on this matter until the Report of the Reference Committee on the Report of the Council, Part

VIII, on Legislation, is brought in?

Dr. Wolff: Yes.

... The motion was seconded, and as there was no discussion, it was put to a vote, and was carried.

SPEAKER BAUER: It is so postponed.

DR. JOSEPH S. LAWRENCE: May I be permitted

to make a statement, Mr. Speaker?

Speaker Bauer: Pertaining to this matter?

Dr. Lawrence: Yes.

Speaker Bauer: It has already been postponed. Dr. LAWRENCE: It was not strictly pertaining to this matter, but pertaining to a remark made by Dr. Werne. I would like to make a statement on that.

SPEAKER BAUER: If there is no objection, the Chairman will grant Dr. Lawrence the floor.

.. No dissent was expressed...

Dr. Lawrence: Dr. Werne gave it as his opinion that when he appeared before the Chiropractic Legislative Commission that there was not a man there among the members of the Commission who was not sympathetic to chiropractic. That, however, should be modified in this way: that not all of the members of that investigating committee were supporters of chiropractic-for two members refused to sign the report.

In defense of the Legislature I should also like to say right now that the legislators are not all for chiropractic. A majority, and a strong majority, are supporting medicine, and if we stand by them,

they will stand by us.

SPEAKER BAUER: Go shead with the report of your Reference Committee, Dr. Eggston.

fore a magistrate's court. In the City of New York they are brought before the Court of Special Sessions, and there we get action. Upstate they are brought before a magistrate's court, with six jurors. In many cases those jurors happen to be friends of the chiropractor being accused, so you cannot get a decision against the chiropractor. The Attorney General's Department has found this weakness also, so the proper move, in my opinion, would be to have the law changed, if that is possible. When I say that, I am over my head, and I would have to turn to Mr. Martin or Mr. Clearwater as to the legal possibilities of having the law so changed that these cases would be tried in some other forum than the magistrate's court.

DR. LAURANCE D. REDWAY, Westchester: Speaking for this resolution, it seems that the discussion which has been provoked by its mere reading in the House is sufficient warranty for this House's passing

favorably upon it.

It is true, I think by common consent, that the law is not being enforced. The reasons for it may be various; however, the matter of calling it to the attention of the Governor and of the Legislature cannot possibly do any harm, and if the discussion in the Legislature by virtue of the passage of this resolution can be made more or less comparable to what has occurred here in the House maybe we will get something done about it, as Dr. Lawrence says. in the matter of revising the law so that it can be enforced. At any rate, as long as it is on the statute books there is no reason, as far as I can see, not to request the authorities to enforce it as far as they can. That is all I have to say.

Dr. CHARLES F. McCARTY, Kings: I just want to state that in Kings County about two weeks ago a chiropractor was convicted in the county court before a jury, and has been sentenced to sixty days in

jail. (Applause)

Dr. Eugene H. Coon, Nassau: I am not of a legal mind, but I cannot understand why the Medical Practice Act cannot be enforced against the chiropractor just as it would be enforced against the medical man. If one of us tried to practice medicine without being registered, we would be hauled up before the State Department and summarily dealt with. What happens with the chiropractor in the courts is They arrest the chiropractor, and then try chiropractic as a method of treatment, and they do not try the chiropractor for practicing in violation of the Medical Practice Act. I think that if they would try him for violation of the Medical Practice Act there would be no need of bringing in character witnesses as to the kind of treatment he gave and how much good he did somebody. We will all how much good he did somebody. grant that they do good.

Chorus: No, we won't.

Dr. Coon: Just for the sake of an argument.

CHORUS: Oh, that's different.

Dr. Coon: But the thing is they are practicing in violation of our Medical Practice Act, which requires that they must pass certain specified examinations. It seems to me that the lawyers and the courts are at fault rather than the Act itself.

DR. HOMER J. KNICKERBOCKER, Ontario: If they can convict a chiropractor in Brooklyn, they surely have no farmers on the jury there. The statement that has just been made indicates that the investigation into the chiropractic laws recently conducted was on the same plan by the Special Committee of the Legislature: they tried chiropractic, not the law. Dr. Albert F. R. Andresen, Kings: I have a sad

note with which to supplement what Dr. McCarty

has said. I read in the newspapers last week that this chiropractor had gone to a higher judge, who set the verdict temporarily aside, saying that there was some kind of bias in the decision, and that it was going to be tried in some higher court, so the chiro-

practor is now at large. (Laughter)

Dr. Madge C. L. McGuinness, New York: I understand that the Governor wants an absolutely perfect Medical Practice Act. Therefore, I suggest that we ask him to appoint a Moreland Act Commission to investigate this matter of chiropractic

and the Medical Practice Act.

DR. HARRY ARANOW, Bronx: I am sorry to speak again on this same subject, but the words "Moreland Act Commission" give me the creeps. (Laughter)

The reason I oppose the resolution is that I think we will accomplish nothing by it. As a former Chairman of the State Society's Committee on Legislation I can tell you that the chiropractic pressure has been tremendous for years, and I am sure it still is. If we cannot accomplish anything constructive, let us leave things alone, for we are likely to stir up trouble without accomplishing anything.

DR. JACOB WERNE, Queens: Would it be in order to introduce an amendment to that resolution to this effect: that the Governor be told that the legal facilities of our State Society, whatever legal talent we have, are available to him for advice on how this

Medical Practice Act can be enforced?

I should like to add this: I appeared before this recent legislative commission on chiropractic, and was convinced that there was not a man on that commission investigating chiropractic who was not antagonistic to medicine and in favor of chiropractic. I believe it is a very serious problem, and one that we should approach carefully and immediately. It will need a lot of the right sort of publicity in this State.

Speaker Bauer: Do you make that as an amendment to the motion?

Dr. Werne: Yes.

...The motion was seconded.....

SPEAKER BAUER: Dr. Werne has amended the motion calling for the adoption of the modified resolution by adding to it that we offer the services of our legal advisers to the Governor in helping to enforce the provisions of the Medical Practice Act. Is there any discussion on the amendment?

DR. JAMES F. ROONEY, Albany: I think that would be one of the suddest things we could possibly do. I have been fighting this chiropractic legislation since 1911. We have thus far succeeded in keeping chiropractors from being licensed in the State of New York, but the key that always opens the door for them and gives opportunity for legislators who are in favor of chiropractic to begin with is the claim that the organized medical profession is jealous of the enormous success that the chiropractors have with patients that the medical profession cannot cure. They always bring in horrible examples that have been cured by chiropractic. It is the same old patent medicine idea, the same old testimonial basis, year after year.

If you want to know the crux of the situation, it is this: The reason we have chiropractors in the State of New York today is that the medical profession has never exerted the united effect of their influence upon the legislators the way the chiropractors have. The Legislative Committee of this State Society has never been supported as a whole by its Society. If any attempt is made to in any way estop the chiropractors in the violation of the Medical Practice Act, every legislator in this State will have from

Section 46 (Sec 19)

Report of Reference Committee on New Business C-Noninclusion of X-Ray and Anesthesia in Any Hospital Service Plan

DR J STANLEY KENNEY, New York The following resolution was introduced by the Medical Society of the County of Erie.

"Whereas, a motion was made, seconded, and carried that the Medical Society of the County of Erie solicit the aid of the State Society against the inclusion of x-ray and anesthesia in any hospital service plan, therefore be it "Revolved, that the State Society establish a defi-

nite stand on this matter?

Your Reference Committee calls attention to the section on Hospital Insurance and Medical Service in the Report of the Planning Committee for Medical Policies This report covers in detail the substance of this resolution and reaffirms its complete accord with the resolution adopted by the House of Delegates of the American Medical Association in June, 1943 It feels that these medical service features properly belong in a Medical Expense Indem-mty Insurance Plan We, therefore, believe that in the adoption of the Planning Committee's report this House of Delegates will have set up its position and stand in this matter We, therefore, recommend that this resolution be tabled, and I so move

The motion was seconded, and as there was no discussion, it was put to a vote, and was unan-

imously carried

Section 47. (See 25)

### Report of Reference Committee on New Business C-Recruitments for New York State Guard

DR J STANLEY KENNEY, New York The following resolution was introduced by Dr Laurance D The follow-Redway, of Westchester County, and has as its subject "Recruitments for the New York State Guard".

"WHEREAS, the New York State Guard is seriously in need of officers as well as enlisted

personnel, medical as well as line, and "Wheneas, the evistence of the New York State Guard is required by the constitution of the

State and

"WHEREAS, more and more Federal troops are removing from the area of the continental United States, and thereby the State Guards of all states become of greater importance as the first line of defense in any internal disturbance, be it from Fifth Column activities or the disasters of nature.

"Resolved, that the Medical Society of the State of New York urges every physician in New York State to apply immediately to his nearest unit of the New York State Guard to ascertain whether or not his services are needed and be it further

"Resolved, that every physician in the State of New York contact as many individuals as possible in his territory between the ages of 17 and 55 with the view of urging them to enlist immediately in the Guard for training in either medical or line-troop duty "

The Reference Committee is in full accord with the intent and purpose of this resolution as presented and recommends its approval and adoption

I so move

The motion was seconded, and as there was no discussion, it was put to a vote, and was unammously carried

(See 27) Section 48

Report of Reference Committee on New Business C-Appointment of Reference Committees of American Medical Association

DR J STANLEI KENNEY, New York The following resolution was presented by Dr C James I Parsons, of Westchester County, and has as its subject "Appointment of Reference Committees of American Medical Association"

"Where is, Section 1 of Chapter X of the Bylaws of the American Medical Association provides that 'immediately after the organization of the House of Delegates at each annual session, the Speaker of the House of Delegates shall appoint from the members, unless otherwise provided, the chairman to be specified by the Speaker These Committees shall serve during the session at which they are appointed,' and

"Whereas, in the interest of assuring proper representation to various opinions and viewpoints in the personnel of reference committees dealing with major policies or controversial questions, it would seem desirable that the House of Delegates have an opportunity to pass upon the appointments to these committees as proposed by the

Speaker of the House, therefore, be it "Resolved, that the Delegates from the Medical Society of the State of New York to the House of Delegates of the American Medical Association be instructed to present a proposed amendment to the Bylaws of the American Medical Association whereby the following sentences would be added to Section 1, Chapter X, of the Bylaws as above quoted "The proposed appointments to all reference committees shall be submitted to the House of Delegates for approval and confirma-tion by a majority of the Delegates present Members of the House of Delegates shall then have an opportunity to offer motions for removal or addition of names of individual delegates for any of these committees, before it shall be confirmed by the House of Delegates"

The Reference Committee has given its careful thought and deliberation to the proposed changes and recommendations as embodied in this resolution We feel that if the provisions of this resolution were accomplished it would only serve to confuse and delay the normal working of the House of Delegates of the American Medical Association further, that the Speaker of the House of Delegates of the American Medical Association, an elected officer, has been placed there because the membership of that House has full confidence in his ability, fairness, and integrity We believe that the present method of conducting the business of the House of Delegates tends to bring about the most in efficiency and conduct of the many complex activities of the Association, and feel that it should not be disturbed We, therefore, recommend disapproval of this resolu-

I so move

The motion was seconded

SPEAKER BAUER. You have before you the report of the Reference Committee which recommends disapproval of the resolution If you vote "Aye" you disapprove of the resolution, if you rote "No" you approve it Is there any discussion?

DR ARTHUR S BROGA, Madison Being one of the little shots from upstate New York, I did not know I was to be a member of this Reference Committee on New Business A, and when I learned about it I was very much pleased However, if it were Section 44. (Sec 18)

Report of Reference Committee on New Business B—Women Medical Students and Interns

Dr. A. A. Eggston, Westchester: This is a resolution introduced by Dr. Emily Dunning Barringer, of New York County, reading:

"Whereas, the Medical Society of the State of New York has had the vision and courage to endorse and expedite the securing of commissions in the Medical Corps of Army and Navy, for women physicians; and

"WHEREAS, the satisfactory commissioning of women physicians in the Medical Corps depends on a supply of well-trained applicants; and

"WHEREAS, the premedical and medical education of women physicians has been seriously affected by the accelerated medical educational program of the Army and Navy, in which the best interests of the women physicians have been ignored, and there is no national standardization in regard to the status of the woman medical student, she being in the position of the proverbial stepchild, while the man medical student is receiving every educational and monetary consideration from the government; and

"Whereas, the woman physician is held equally responsible in the eyes of the law, because the same license to practice medicine is issued to her as to her brother colleague; therefore be it

"Resolved, that the Medical Society of the State of New York appoint a special committee to study the problem of the status of the woman medical student and intern; that this committee be instructed to evaluate the many difficulties of the problem, and have power to act to correct them; further, that on this committee there should be at least two women physicians who are known to be vitally interested in the matter, and that one of these women should be the incoming president of the American Medical Women's Association, who is a member of our Society."

Your Reference Committee on New Business B suggested a modification of this resolution, and discussed the matter with Dr. Barringer, and she was in agreement with the modification.

Your Reference Committee wishes to offer a modified resolution, as follows:

"Whereas, the Medical Society of the State of New York has had the vision and courage to endorse and expedite the securing of commissions in the Medical Corps to Army and Navy for women physicians; and

"Whereas, the satisfactory commissioning of women physicians in the medical corps depends on a supply of well-trained applicants; and

"Whereas, the premedical and medical education of women physicians has been seriously affected by the accelerated medical educational program of the Army and Navy, in which the best interests of the women physicians have been ignored, while the man medical student is receiving every educational and monetary consideration from the government;" and

(From that paragraph there was omitted, "and there is no national standardization in regard to the status of the women medical student, she being in the position of the proverbial stepchild." We deleted those phrases.)

"Whereas, the woman physician is held equally responsible in the eyes of the law because the same license to practice medicine is issued to her as to her brother colleague; therefore be it

"Resolved, that the Medical Society of the State of New York appoint a special committee of five" (The number was added.)

"to study the problem of the status of the woman medical student and intern; that this committee be instructed to evaluate the many difficulties of the problem and to report their findings and recommendation to the Council of the Medical Society of the State of New York; further, that on this Committee there should be at least two women physicians who are known to be vitally interested in the matter, and that one of these women should be the incoming president of the American Medical Women's Association, who is a member of our Society."

Your Reference Committee on New Business B moves the adoption of this modified resolution.

....The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.....

Section 45. (See 29)

Report of Reference Committee on New Business C-Promotion of Working Relationship with State Agencies

Dr. J. Stanley Kenney, New York: The following resolution was introduced by Dr. Ralph T. B. Todd, of Westchester, and has as its subject "Promotion of Working Relationship with State Agencies":

"Whereas, His Excellency, the Governor, in his annual message, recognized that the State 'has an essential function' in meeting the needs of its citizens for good medical care; and

"Wherbas, the Medical Society of the State of New York has notified the Governor, by means of a letter from the Council of the Society, that its membership is ready and willing to cooperate in every possible way with the State government, in order to assure to all citizens of the State

adequate and effective medical care; and
"Whereas, various committees of the Medical
Society of the State of New York have established
close working relationships in recent years with
various departments of the State government;

therefore, be it

"Resolved, that the House of Delegates approves
the efforts of the Council, through its various
appropriate committees, in furthering these relations and in assisting the State government in
every feasible way to accomplish the objectives
set forth by Governor Dewey in his annual message—namely, 'a partnership of government and
the medical profession functioning cooperatively
in the interests of public health and welfare,
without endangering medical standards, threatening the professional interests of the practitioner
or the financial capacity of our people."

The Reference Committee believes that this resolution expresses adequately and properly the sentiments of the membership of the Medical Society of the State of New York and recommends the approval of the resolution. It also recommends that a copy of this action by the House of Delegates be forwarded to the Governor in further confirmation of a letter already dispatched from the Council of the Society.

I so move.

... The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.....

# Woman's Auxiliary

# To the Medical Society of the State of New York

#### Convention News

THE Eighth Annual Convention of the Woman's Auxiliary to the Medical Society of the State of New York was held May 8-10, 1944, at the Hotel

Pennsylvania, New York City.

All of the meetings but the postconvention meeting were held in the Roof Garden. The postconvention meeting was held in the Keystone Room on the Balcony Floor. The reports from the State Executive Officers and the county presidents were

read and received with much interest.

Mrs. F. Leslie Sullivan opened the convention and presided at all meetings in a most gracious and efficient manner. The invocation was given by Rev. Kermit Castellanos, of St. Bartholomew's Church, Brooklyn. The salute to the flag was led by Mrs. B. G. Shults, Herkimer. Mrs. T. DeAngelo, Jackson Heights, welcomed the delegates and visi-tors to the Convention. Mrs. Bradford F. Golly, Utica, gave the response to the welcome. The well-organized convention program, which we all enjoyed, was the result of the untiring efforts of Mrs. B. D. St. John, Port Washington. Mrs. A. A. Jaques, Lynbrook, was the Credential Chairman. The following Woman's Auxiliary Pledge was re-

"I pledge my loyalty and devotion to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation, and sustain its high ideals."

peated by all present, at the opening session:

Mrs. C. R. Seymour, Binghamton, directed a

very beautiful and impressive memorial service. After the election of officers Mrs. Sullivan presented the gavel to Mrs. Carlton E. Wertz, Buffalo, the newly elected President. At the postconvention meeting plans were formulated for a very active and interesting year. The speakers were Mrs. Eben J. Carey, Wauwatosa, Wisconsin, the National Auxiliary President. Mrs. Carey was presented by Mrs. Luther H. Kice. Monday afternoon an address was given by Dr. T. A. McGoldrick, President of the Medical Society of the State of New York for 1943—

Dr. L. H. Bauer, Hempstead, gave us information on legislation. Dr. Chas. Gordon Heyd gave a clear picture of the Physicians' Home project. Dr. Herbert H. Bauckus, President of the Medical Society of the State of New York for the year 1944-1945, addressed the postconvention meeting. Dr. Bemis Hood, Buffalo, also spoke at the post-

convention meeting.

Upon our return home we have many memories of the luncheon, dinner, Monday evening's enter-tainment, "The Boys and Girls from Manhasett," along with Miss Ann Delafield's demonstration— all of which offered relaxation and much-needed diversion. Old friendships were renewed and new friends were made. It is most important that we keep our Auxiliary active and ready to help in all of the present wartime and postwartime activities.

We wish Mrs. Carlton E. Wertz, our newly elected President, a most successful year.

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### TIME TO PAY THE DOCTOR

One way to curb inflation, the government reminds us, is to take excess spending money off the market by paying outstanding debts. If this is correct, it is safe to say that settlement of old, neglected medical bills would constitute a sturdy hedge against inflation. What better time for tactful but firm measures to collect those overdue accounts?-J. Med. Soc. Co. N.Y.

dependent upon a vote of the combined organization of the Medical Society of the State of New York probably some big shot from New York City would thunder, "Let us put somebody else in." That was That was

my reasoning.

I think we should give every confidence to the Speaker of the House in his selection of committees. That should apply to the New York State Society, and it should also apply to the American Medical Association. We ought also to give our confidence to the Speaker of the American Medical Association, so whomever he recommends should get our O.K. If the Speaker does not do his work satisfactorily, but puts in a lot of men who are unsuitable on these committees, like the old men of the Supreme Court, we can disbar him. I am not in favor of this resolution.

.... The question was called for, and the motion was put to a vote, and was unanimously carried.... SPEAKER BAUER: The resolutions are lost.

Section 49. (See 21)

Report of Reference Committee on New Business C-1945 Annual Meeting

DR. J. STANLEY KENNEY, New York: This resolution concerns the 1945 Annual Meeting:

"WHEREAS, the 1943 Annual Meeting of the Medical Society of the State of New York was a great success in Buffalo; and

"Whereas, Dr. Herbert H. Bauckus, your President-Elect, is a Buffalonian; and

"Whereas, the Medical Society of the County of Erie would deem it an honor and privilege to have its colleagues convene there again; therefore be it

"Resolved, that the Medical Society of the County of Erie extends an invitation to the Medical Society of the State of New York to hold

its 1945 Annual Meeting in Buffalo."

Your Reference Committee recommends to the House of Delegates that it accept the kind invitation of the Medical Society of the County of Erie to hold the 1945 Annual Meeting of the American Medical Society of the State of New York in Buffalo, and desires to express the thanks of the House to this Committee for this privilege.

I so move.

... The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried .....

(To be continued in the July 1 issue.)

# Woman's Auxiliary

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# Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
John N. Bradley	91	Albany	April 30	
Henry Drey	49	L.I.C. Hosp.	April 1	Schenectady Brooklyn
Frederick A. Hayes	78	Niagara	April 30	Buffalo
Reeve B. Howland	74	N.Y. Hom.	May 12	Elmira
Nehemiah Janko	71	Baltimore	April 13	Manhattan
James A. Kearney	53	Queens, Canada	March 10	Ossining
William A. Krieger	61	Albany	May 19	Poughkeepsie
Emil Maisner	77	L.I.C. Hosp.	May 14	Bronx
Harleigh S. Peacock	44	Buffalo	January 20	Gasport
George E. Schoolcraft	76	Albany	February 27	Hartwick
Charles B. Skinner	28	P. & S., N.Y.	March 23	Yonkers
Ichabod T. Sutton	81	Albany	May 12	Prattsville
Philip C. Thomas	70	N.Y. Hom.	January 24	Manhattan
S. Seymour Trischett	50	P. & S., N.Y.	May 21	Mount Vernon

### PRESCRIPTION WRITING

One of the most difficult problems in the teaching of medical students is that of prescription writing. Perhaps no single facet of medical instruction is so frequently the butt of adverse criticism, not only from physicians themselves but from those responsible for compounding prescriptions, namely, pharma-Those who teach pharmacology to medical students are well aware of this situation, and many have been the methods used in attempting a solution. In this connection it may be of interest to outline briefly a plan which is being tried at the Medical College of Viiginia

A prescription is a message from a physician to a pharmacist, and so the better these two understand one another the more smoothly will this message be interpreted and executed. With this in mind, the school of pharmacy here at the college was asked some several years ago to aid in the teaching of prescription writing to our medical students This

cooperation was gladly given. At present, during the regular pharmacology course eight lectures are given by Dr. T. D. Rowe and Dr Karl Kaufman, in which the more common pitfalls and errors of prescription writing, as the pharmacist sees them, are brought to the attention of the medical students In addition, other problems of mutual concern, such as, for instance, the intricacies of the narcotic laws, are discussed. While this program has now been in progress too short a time for final evaluation, it is already evident that this addition to the teaching of medical pharmacology is bearing fruit, and it is planned to continue this cooperative scheme on a more elaborate scale in the coming years Fundamentally this would seem to be a sensible and logical procedure and for us here at the college, because of our unique organization, an especially feasible plan.—Harvey B Haag, in the Virginia Pharmacist



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#### "Fatigue" Fracture or "March" Fracture

March fracture, recognized for many years, has under wartime conditions become a subject of re-newed interest. It has been found to occur not only in the metatarsals, as the earlier reports would suggest, but in other weight-bearing bones as well. Since 1938, cases have frequently been recorded as occurring in the tibia, fibula, and femur, and more rarely in the pelvis and spine. Most of the earlier writers contented themselves with the designation "march fracture," or simply "march foot," in reference to the occurrence of the condition chiefly among soldiers subject to long and unaccustomed marches. Recently certain writers have used instead the term "fatigue" or "stress" fracture.

Hartley1 in a recent contribution strongly recommends the name "fatigue fracture." He believes the condition is analogous to the fatigue fracture occurring in metals subject to increasing stresses and quotes Henschen's observation that by spectroradiographic methods exhaustion fractures have been shown to occur in bone under prolonged stress without adequate rest periods. He reserves the term for those cases in which a partial or complete fracture can be shown radiographically in apparently normal bone or in which a submicroscopic or molecular fracture can be inferred from the presence of callus or the subsequent history. There must be no systemic disease present which could cause bone weakness, and there must be no history of violence.

Hartley, like others, calls attention to the curiously low incidence of fatigue fracture in both America and Great Britain, where, until recently at least, only scattered examples have been recorded, in contrast to the large numbers of cases encountered in

Finnish, Swedish, Norwegian, and German recruits. By some these fractures have been confused with the pseudo-fracture of Looser but, as Hartley points out, they are quite different and entirely unrelated. Ode, they are duties occur in diseased bone; they often involve nes; they are often involve and may remultiple, produ main static for other hand, are found in which harries being of normal texture; they are a wally much and are characterized by abundant collection through the fracture itself may be barely proportion. The type occurring in the foot usually involves the shaft of the second or third metatarsal, less often the fourth, and rarely the fifth.

Krause' divides the syndrome into four stages: (1) During the first week or ten days following the onset of symptoms, the roentgenogram may show only a narrow fracture line or possibly none at all. (2) In from one to three weeks after onset, a spindleshaped callus formation is seen about the affected area and a fracture line is often visible. (3) Later, after immobilization, the callus is more sharply circumscribed and denser. The fracture line may still be visible. (4) The end result is a slightly thickened cortex.

Reports from army camps indicate that large numbers of these fractures are now being seen. Krause' has encountered more than 200 cases. The consensus of opinion attributes the fracture to repeated mechanical stresses of such character that their summation exceeds the physiologic strength of the bone. The onset of symptoms is usually gradual but may be abrupt. In the metatarsal area

there is gradually increasing discomfort when the body weight is placed on the foot, which may increase to the point of complete disability. Swelling and edema, especially on the dorsum of the foot, are frequently associated. Treatment is by immobilization and relief of weight-bearing, with gradual re-

turn to full activity.

Fatigue fractures do not appear to have been reported in the tibia until 1938, but since that time a number of such cases have been published. Krause<sup>1</sup> reported four examples in soldiers. The most common site appears to be at the junction of the middle and upper thirds of the tibia. The fracture is usually incomplete, but may progress to a complete fracture following a relatively slight injury. There is no soft tissue swelling and no osteoporosis. Most of the callus is seen posteriorly and medially, indicating that bone proliferation tends to follow the line of greatest stress.

Hartley1 calls attention to the fact that lateral roentgenograms of the tibia indicate that the maximum transmission of weight is posterior to the long axis of the tibia, as the bony architecture shows stress lines to be accentuated in the triangular area behind the midpoint of the internal condyle. These lines meet at the cortex, about 3 inches below the condyle, very near the point of origin of these frac-tures. This is taken as additional evidence that the

fractures are due to bony fatigue or exhaustion.

A case of "fatigue" fracture of the femur has been reported by Peterson. This was in a 17-year-old boy, who experienced sudden pain during exercise after a lengthy period of inactivity. A roentgenogram disclosed a slight crack in the femoral cortex. Later a diagnosis of bone tumor was made, but progressive callus formation finally clinched the diagnosis of fracture.

Jones, in a recent report, describes "march" fractures of the inferior public ramus occurring in three soldiers. They complained of gradually developing pain along the adductor aspect of the thigh following exercise, with no history of trauma. All made satisfactory recoveries following simple bed rest.

A case of "exhaustion" fracture of the spine is reported by Hartley, who believes that excessive overloading was the contributing factor. It occurred in a boy 17 years of age who was carrying sacks of coal weighing 100 pounds on his back. The pain came on suddenly and was acute in nature. Roentgenograms showed compression of the fifth dorsal vertebra. This narrowing of the vertebra increased during a one-week interval when there was no attempt at extension of the spine.

The frequent reports of fatigue fractures during the past five years emphasize the role which ab-normal stresses play in their etiology. Most of the cases have occurred in recruits in the military serv-

Hartley, J. Blair: Brit. J. Radiol. 16: 255-262 (September) 1943.

2 Krause, George R.: Radiology 38: 473-476 (April) <sup>2</sup> Krause, George R., and Thompson, John R., Jr.:
Radiology 41: 580-585 (December) 1943.

<sup>4</sup> Peterson, L. T.: J. Bone <sup>2</sup> Joint Surg. 24: 185-188 (January) 1942.

<sup>1</sup> Jones, Dean B.: Radiology 41: 586-588 (December)

<sup>1943.</sup>Hartley, J. Blair: Brit, J. Radiol, 16: 348 (November)

ice, who were subjected to unaccustomed physical tasks. It should be noted that nearly all of the patients are young persons. Differentiation of these tractures from sarcoma, which has been seriously considered in several of the reported cases, is especially important. Callus formation is a prominent feature and is often out of all proportion to the ex-

tent of the fracture. Radiologists must be on their guard to recognize the condition, especially in view of the compensation angle. Finally, a standardized name should be adopted. "Fatigue" fracture, as advocated by Hartley, would seem to be acceptable from both an etiologic and descriptive point of view.—Radiology, April, 1944

#### RESEARCH CENTER IN COSTA RICA TO DEVELOP CINCHONA

Plans have been made for the planting of about 100,000 cinchona seedlings by the Inter-American Institute of Agricultural Sciences at Turrialba, Costa Rica, to aid in the development of a quinine-producing industry in Latin America.

This has been announced in Washington by Earl N. Bressman, director of the Institute, which was established last year as an inter-American agricultural research and development center.

The seedlings destined for planting in Costa Rica are plants grown from part of 2,000,000 cinchona seeds which were taken out of the Philippine Islands in a flying fortress by Colonel Arthur F. Fischer just before the fall of Bataan to the Japanese.

Colonel Fischer is now liaison officer of the War Department with the United States Office of Foreign Economic Administration, which is cooperating with the other American republics in the expansion of the cinchona industry in the Western Hemisphere to help replace quinine supplies lost in the Far East.

The seedlings are of the high-yielding Ledgeriana type developed in the Far East from cinchona stock originally brought from South America, the home of the cinchona tree. The seeds snatched from under the noses of the Japanese in the Philippines have been planted temporarily at a United States

government plant station at Glendale, Maryland, from where they are being distributed to Latin America for the expansion of einchona planting.

The arrangements for the planting of 100,000 scedlings at Turrialba, made in cooperation with the War Department and the Foreign Economic Administration, involve the largest single transplanting resulting from the Philippine stock. Previously, a trial lot of 1,000 of the seedlings had been sent to Turrialba.

"The first batch of seedlings has done so well in Costa Rica, it is logical to undertake a larger-scale operation," said Dr. Bressman. "The development of a cinchona-growing industry is well under way in Latin America. I have great expectations for the establishment of quinine production in the Western Hemisphere on a solid and permanent basis."

Cinchona seedlings from Colonel Fischer's stock have been distributed widely in Latin America. Among the recipients have been Peru, Brazil, Mexico, Guatemala, Ecuador, Colombia, El Salvador, and Nicaragua.

Many of the seedlings have been shipped to new agricultural experiment stations set up in some of these countries with the cooperation of the United States.—Release from the Office of the Coordinator of Inter-American Affairs

#### GADGETS DEPRECIATE CLINICAL SKILL?

Every one well remembers the adage of former Vice-President Thomas Riley Marshall, who once said: "What this country needs is a good five-cent cigar." This could be paraphrased to: "What cardiology needs is a simplified book for the general practitioner." This take off on the vice-president's adage repeatedly recurred in the mind of the writer while he read carefully various books and articles on the subject. There is a definite need today for a manual that will simplify the problem of heart disease for those who find the subject to be too complex and extensive in current publications.

Many books have been written for those who have access to all the facilities and new gadgets which the modern cardiologist thinks are necessary to make an adequate diagnosis in heart disease. All this notwithstanding, the late H. A. Christian made this significant observation: "Blind dependence on any instrument or laboratory procedure can but have a numbing and depreciating influence on the clinical skill of the internist."

In our opinion it is very unfortunate that instrument-maker cartels and other restraining influences have made remote the possibility of the general practitioner's owning an electrocardiograph or a fluoroscope. It is our fervent hope, when this present holocaust is over, that with the newer advances in electronics and better merchandizing facilities based on the greatest need for the greatest number, more practitioners may possess some of the gadgets that are now in the hands of the few.

Then the general practitioner who will have had better training in his medical school days may become as well versed in the interpretation and meaning of an electrocardiogram or a chest plate as his specialist brother is today.

This newer knowledge of electrocardiography is now in the same status as studies in blood chemistry were in relation to general medicine at the turn of the present century.—G. M., in Pennsylvania M. J., March, 1944

#### CARTHAGO DELENDA EST.

When Joshua blew his trumpets before Jericho, according to a source of information usually considered reliable, the walls came tumbling down. Troy went up in flames after the fifth column of the Greeks had penetrated its inner defenses. Nineveh and Tyre became one with the pomp of yesterday, and the merciful jungle has crept in to cover the bones of many an ancient city. After the second Punic War, when Hannibal had finally been driven from Italy, the elder Cato had only one ending for his speeches: Carthago delenda est—"Carthage must be destroyed;" and eventually that city, which had threatened the security of Rome, was erased from the map so thoroughly that corn could be planted over its ruins.

History repeats itself. Germany, for a century the scourge of Middle Europe, had prepared herself and had every intention of waging a destructive warfare on her European neighbors, if not on all the world that resisted her. Warsaw was destroyed. Rotterdam was laid waste in cold cruelty, after its surrender; the same would have happened to the cities of England if Goering had not overestimated

the power of the Luftwaffe.

After years of desperate heroism the tide has turned, and it is the nations allied against Germany that have the mounting air power to destroy the cities of that rebellious nation. Berlin is being laid waste, and the job will be carried through to the

finish. A moral question is now being raised, and many shocked persons, here and in England, are crying out against the violence and the mercilessness of this growing counterattack. We must not put ourselves in the category of those who make war on civilian populations, they say, and vengeance belongs to the Lord. (There is an equally applicable aphorism that those who live by the sword must perish by the sword.) That able commentator, Raymond Gram Swing, has taken occasion to answer these horror-stricken protestants: in the destruction of Berlin we are not primarily making war on her civilian population, on her women and children, but we are seeking to destroy Germany's power to make war against the world.

These pacifistic peacemakers are not the only ones who have feelings of guilt over the course the war has taken; millions of us have feelings of remorse. But they are not concerned with the destruction of Berlin; they are over our failure in the past to have taken the obvious steps necessary to prevent this war from breaking out at all. They are because we failed to prevent Japan from taking Manchukuo, because we failed to protect Ethiopia from Mussolini; because we failed to save Czechoslovakia from Hitler in 1938. These are the misdeeds that we should repent—to have failed then to use force in order to prevent this violence now.—Editorial in New England J. M., March 30, 1944

#### "IVORY CROSS EXPEDITION" TO LIBERATED HOLLAND

American educators in the field of dentistry have interested themselves in a project to restore dental practice in Holland to its prewar level as speedily as possible after the country's liberation. Foremost among them is Dr. S. L. T. Appleton, dean of the School of Dentistry at the University of Pennsylvania. Under his leader-hip a unit will be formed which will give courses on dentistry at Utrecht University in Holland as soon as conditions permit. The courses are to last four weeks and will be prepared in advance, both in the English and Dutch languages. Dr. Appleton has appointed Prof. Lester W Burkert as leader of the committee, while the Netherlands government has commissioned Dr. Herbert Loeb, of Cambridge, Massachusetts, to cooperate with Dr. Burkert. Dr. Loeb is a graduate of Utrecht University and of the University of Pennsylvania's School of Dentistry.

Dean Appleton has already offered to put at the disposal of the committee all techni al books and

publications of which the school possesses more than one copy. All material and instruments needed for practical demonstration will be obtained in the United States; dental supply houses have already promised their cooperation.

The plan has the full approval of the Netherlands Minister of Education, Dr. Gerrit Bolkestein, who is at present in this country to study the American school system. The committee will be known as the "Ivory Cross Expedit on" in honor of the "Ivory Cross," Netherlands Association for the elimination of dental decay, of which Princess Juliana is honorary president.

Julians is honorary president.

There can be little doubt that undernourishment and lack of needed vitamins have caused much dental decay among the Dutch population, while the disruption of university life under the Nazis has made the study of dentistry, as well as of other branches of medicine, practically impossible.—

Release from the Netherlands Information Bureau

#### ALLIED FORCES DENTAL SOCIETY

The formation of an Allied Forces Dental Society, composed of leading dental surgeons of the Allied Nations, was recently reported by the American Dental Association. The society was formed for the purpose of pooling ideas to better the health of the fighting forces and to further postwar dental science, and more than 650 dental surgeons of the Royal Navy, Royal Air Force, and American, British, and Canadian armies have been admitted to

membership in the society. Major Richard H. Carnahan of Texas, Capt. Philip S. Brackett of Massachusetts, and Lieut. Comdr. E. S. Boden of Ohio with the help of British dental officials organized the new society, which was formed in London.

Internationally known dental surgeons give lectures at the society's monthly meetings on latest methods of treatment.—J.A.M.A., April, 1944

ice, who were subjected to unaccustomed physical tasks. It should be noted that nearly all of the patients are young persons. Differentiation of these fractures from sarcoma, which has been seriously considered in several of the reported cases, is especially important. Callus formation is a prominent feature and is often out of all proportion to the ex-

tent of the fracture. Radiologists must be on their guard to recognize the condition, especially in view of the compensation angle. Finally, a standardized name should be adopted. "Fatigue" fracture, as advocated by Hartley, would seem to be acceptable from both an etiologic and descriptive point of view.—Radiology, April, 1944

#### RESEARCH CENTER IN COSTA RICA TO DEVELOP CINCHONA

Plans have been made for the planting of about 100,000 cinchona seedlings by the Inter-American Institute of Agricultural Sciences at Turrialba, Costa Rica, to aid in the development of a quinine-producing industry in Latin America.

This has been announced in Washington by Earl N. Bressman, director of the Institute, which was established last year as an inter-American agricultural research and development center.

The seedlings destined for planting in Costa Rica are plants grown from part of 2,000,000 cinchona seeds which were taken out of the Philippine Islands in a flying fortress by Colonel Arthur F. Fischer just before the fall of Bataan to the Japanese.

Colonel Fischer is now liaison officer of the War Department with the United States Office of Foreign Economic Administration, which is cooperating with the other American republies in the expansion of the cinchona industry in the Western Hemisphere to help replace quinine supplies lost in the Far East.

The seedlings are of the high-yielding Ledgeriana type developed in the Far East from cinchona stock originally brought from South America, the home of the cinchona tree. The seeds snatched from under the noses of the Japanese in the Philippines have been planted temporarily at a United States

government plant station at Glendale, Maryland, from where they are being distributed to Latin America for the expansion of cinchona planting.

The arrangements for the planting of 100,000 seedlings at Turrialba, made in cooperation with the War Department and the Foreign Economic Administration, involve the largest single transplanting resulting from the Philippine stock. Previously, a trial lot of 1,000 of the seedlings had been sent to Turrialba.

"The first batch of seedlings has done so well in Costa Rica, it is logical to undertake a larger-scale operation," said Dr. Bressman. "The development of a cinchon-growing industry is well under way in Latin America. I have great expectations for the establishment of quinine production in the Western Hemisphere on a solid and permanent basis."

Cinchona seedlings from Colonel Fischer's stock have been distributed widely in Latin America. Among the recipients have been Peru, Brazil, Mexico, Guatemala, Ecuador, Colombia, El Salvador, and Nicaragua.

Many of the seedlings have been shipped to new agricultural experiment stations set up in some of these countries with the cooperation of the United States.—Release from the Office of the Coordinator of Inter-American Affairs

#### GADGETS DEPRECIATE CLINICAL SKILL?

Every one well remembers the adage of former Vice-President Thomas Riley Marshall, who once said: "What this country needs is a good five-cent cigar." This could be paraphrased to: "What cardiology needs is a simplified book for the general practitioner." This take off on the vice-president's adage repeatedly recurred in the mind of the writer while he read carefully various books and articles on the subject. There is a definite need today for a manual that will simplify the problem of heart disease for those who find the subject to be too complex and extensive in current publications.

Many books have been written for those who have access to all the facilities and new gadgets which the modern cardiologist thinks are necessary to make an adequate diagnosis in heart disease. All this notwithstanding, the late H. A. Christian made this significant observation: "Blind dependence on any instrument or laboratory procedure can but have a numbing and depreciating influence on the clinical skill of the internist."

In our opinion it is very unfortunate that instrument-maker cartels and other restraining influences have made remote the possibility of the general practitioner's owning an electrocardiograph or a fluoroscope. It is our fervent hope, when this present holocaust is over, that with the newer advances in electronics and better merchandizing facilities based on the greatest need for the greatest number, more practitioners may possess some of the gadgets that are now in the hands of the

few. Then the general practitioner who will have had better training in his medical school days may become as well versed in the interpretation and meaning of an electrocardiogram or a chest plate as his specialist brother is today.

This newer knowledge of electrocardiography is now in the same status as studies in blood chemistry were in relation to general medicine at the turn of the present century.—G. M., in Pennsylvania M. J., March, 1944

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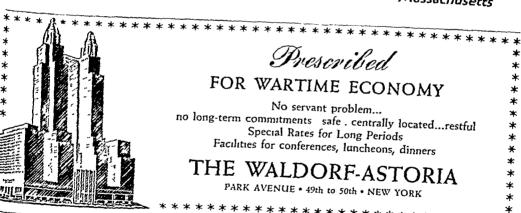
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